

FIG. 1

PRIOR ART

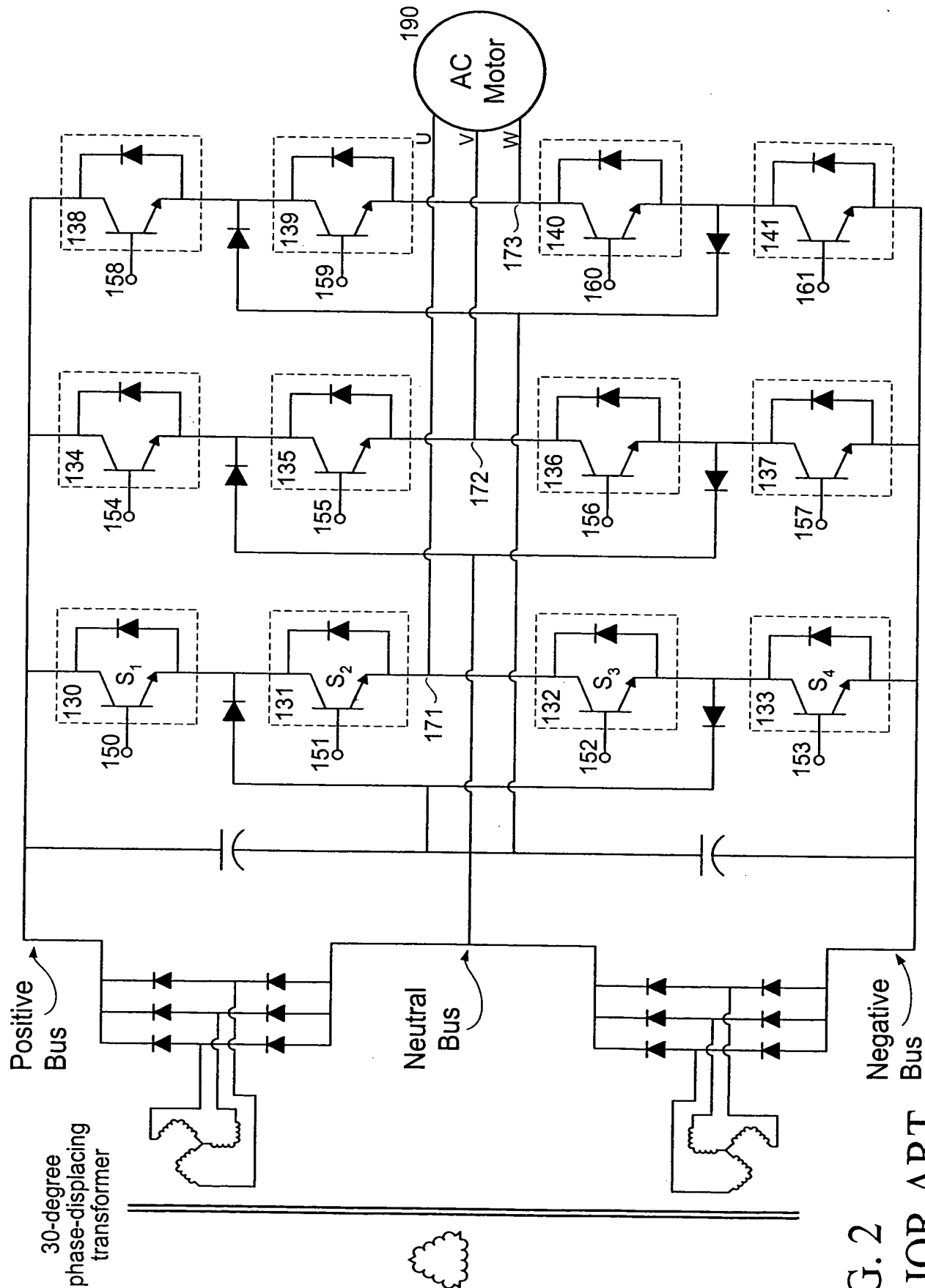


FIG. 2
PRIOR ART

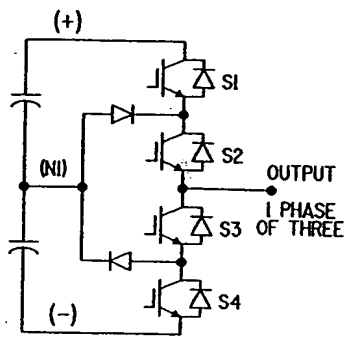


FIG. 3A
PRIOR ART

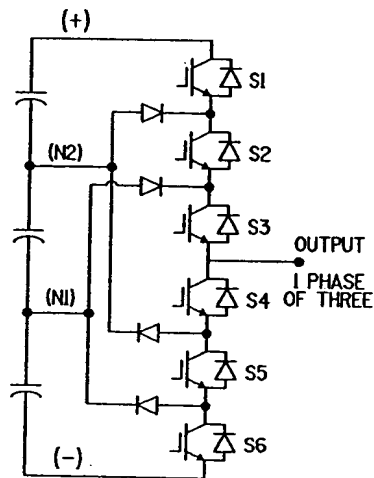


FIG. 3B
PRIOR ART

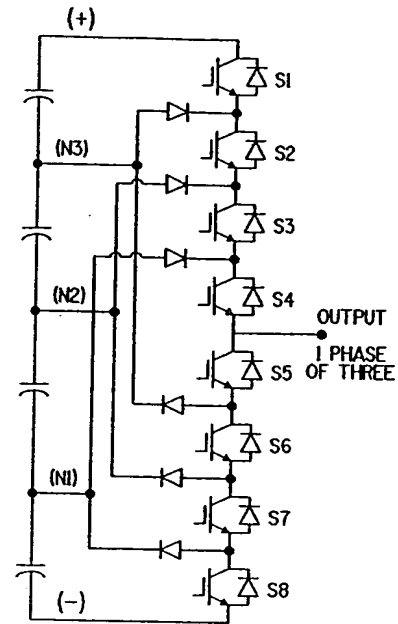


FIG. 3C
PRIOR ART

SWITCH STATE		OFF	ON
<u>3 LEVEL</u>	1)	S1,S2	S3,S4
	2)	S1,S4	S2,S3
	3)	S3,S4	S1,S2
<u>4 LEVEL</u>	1)	S1,S2,S3	S4,S5,S6
	2)	S1,S2,S6	S3,S4,S5
	3)	S1,S5,S6	S2,S3,S4
	4)	S4,S5,S6	S1,S2,S3
<u>5 LEVEL</u>	1)	S1,S2,S3,S4	S5,S6,S7,S8
	2)	S1,S2,S3,S8	S4,S5,S6,S7
	3)	S1,S2,S7,S8	S3,S4,S5,S6
	4)	S1,S6,S7,S8	S2,S3,S4,S5
	5)	S5,S6,S7,S8	S1,S2,S3,S4

FIG. 4A

FIG. 4B

FIG. 4C

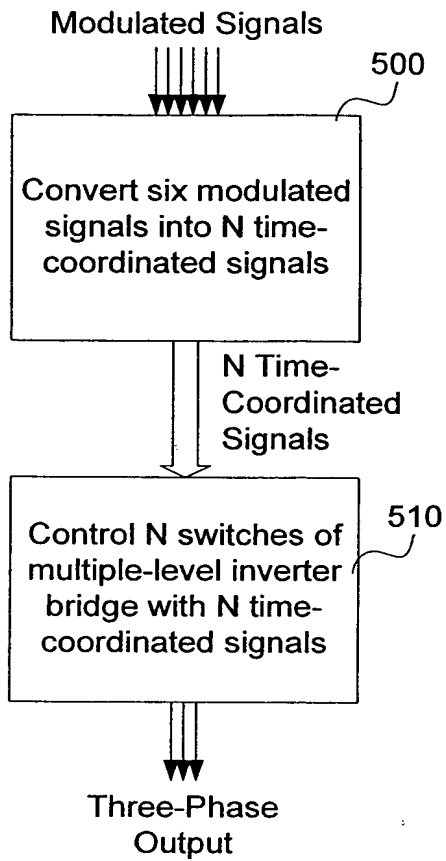


FIG. 5

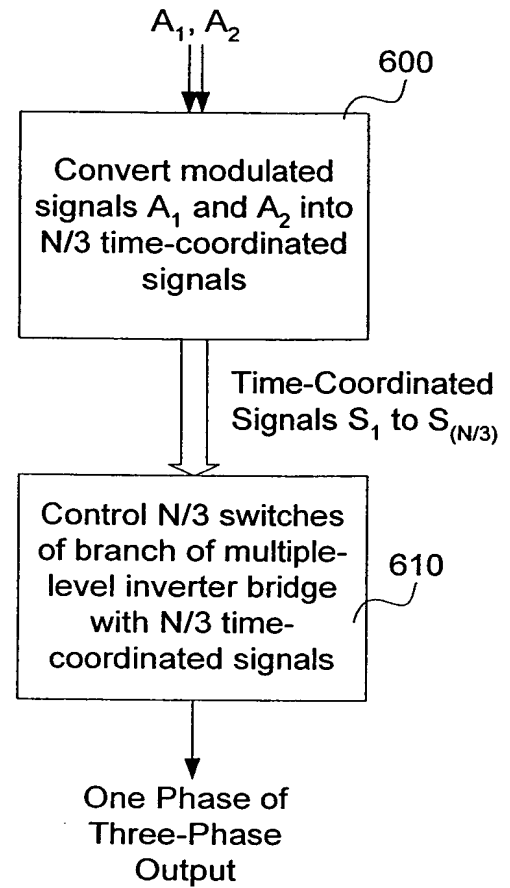


FIG. 6

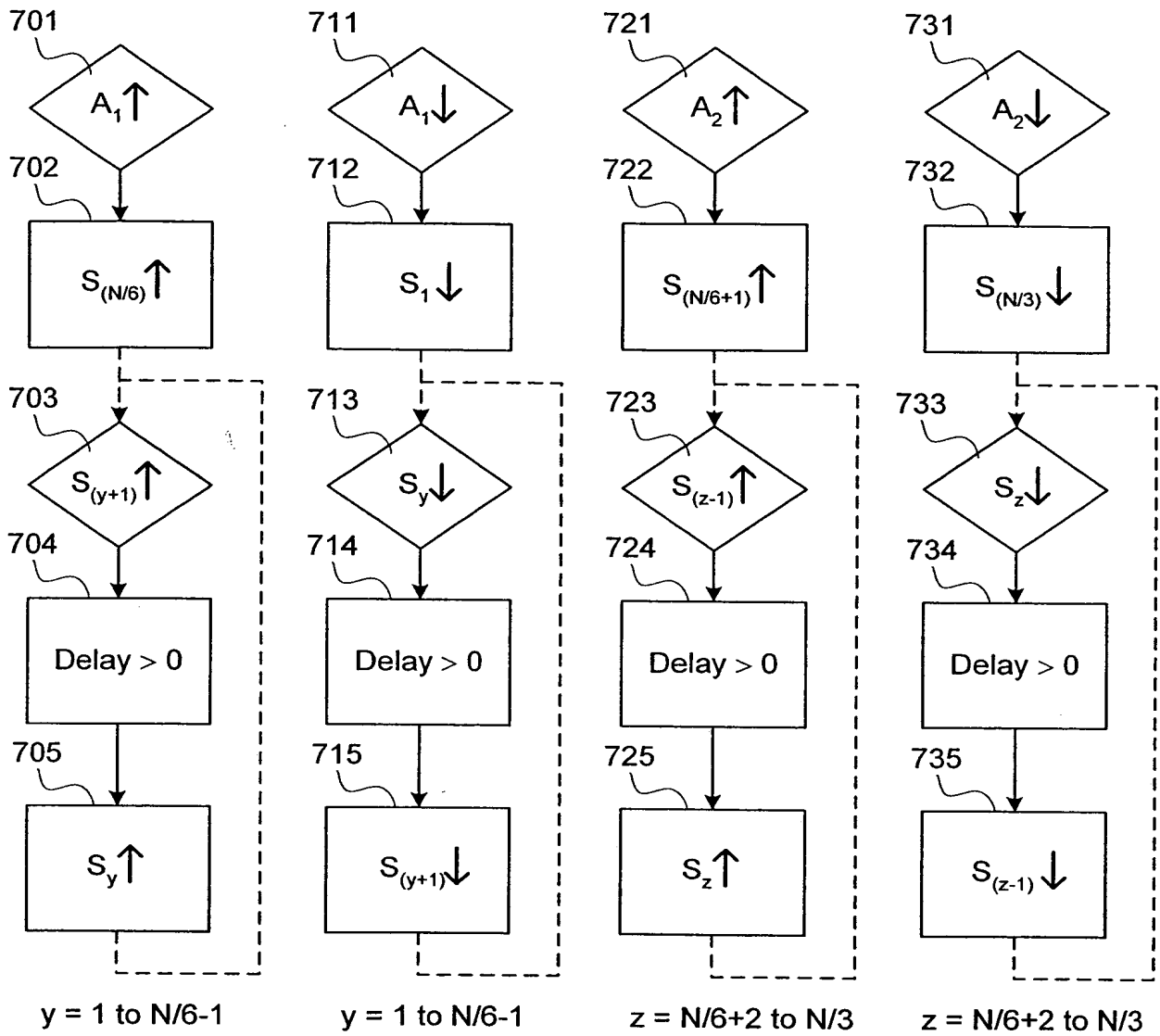


FIG. 7A

FIG. 7B

FIG. 7C

FIG. 7D

FIG. 8A

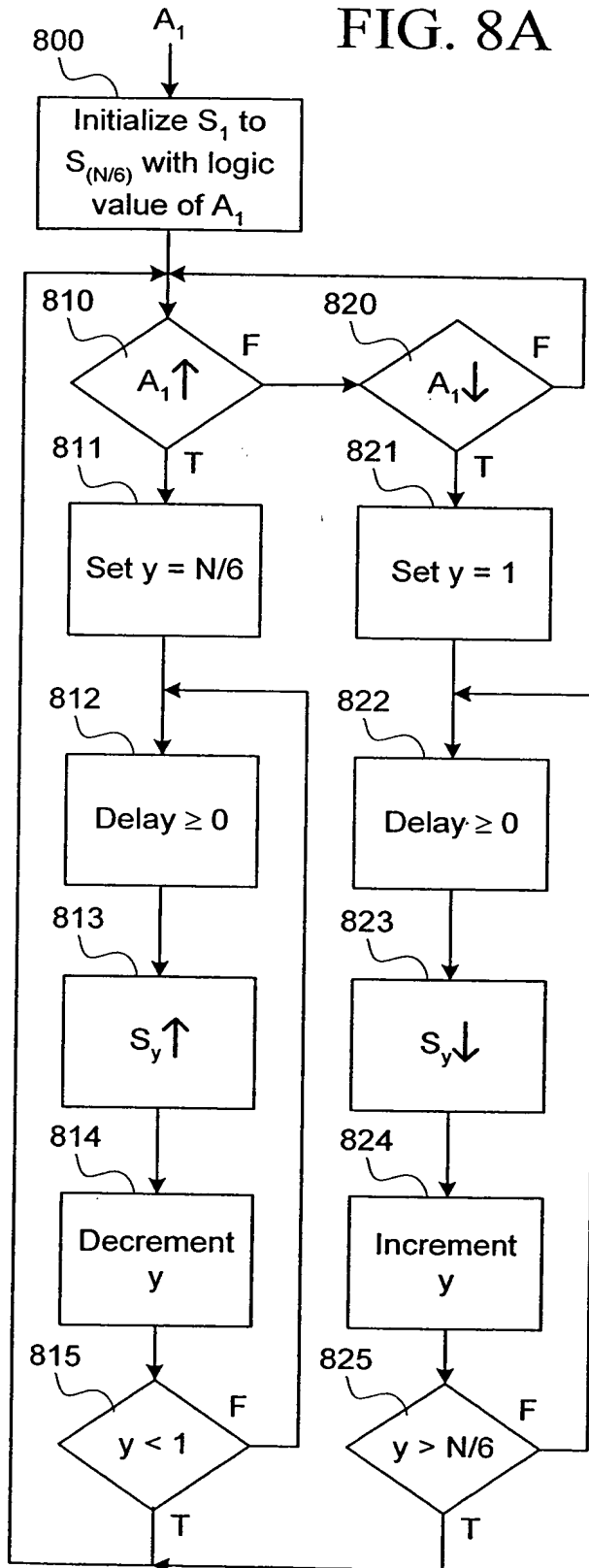


FIG. 8B

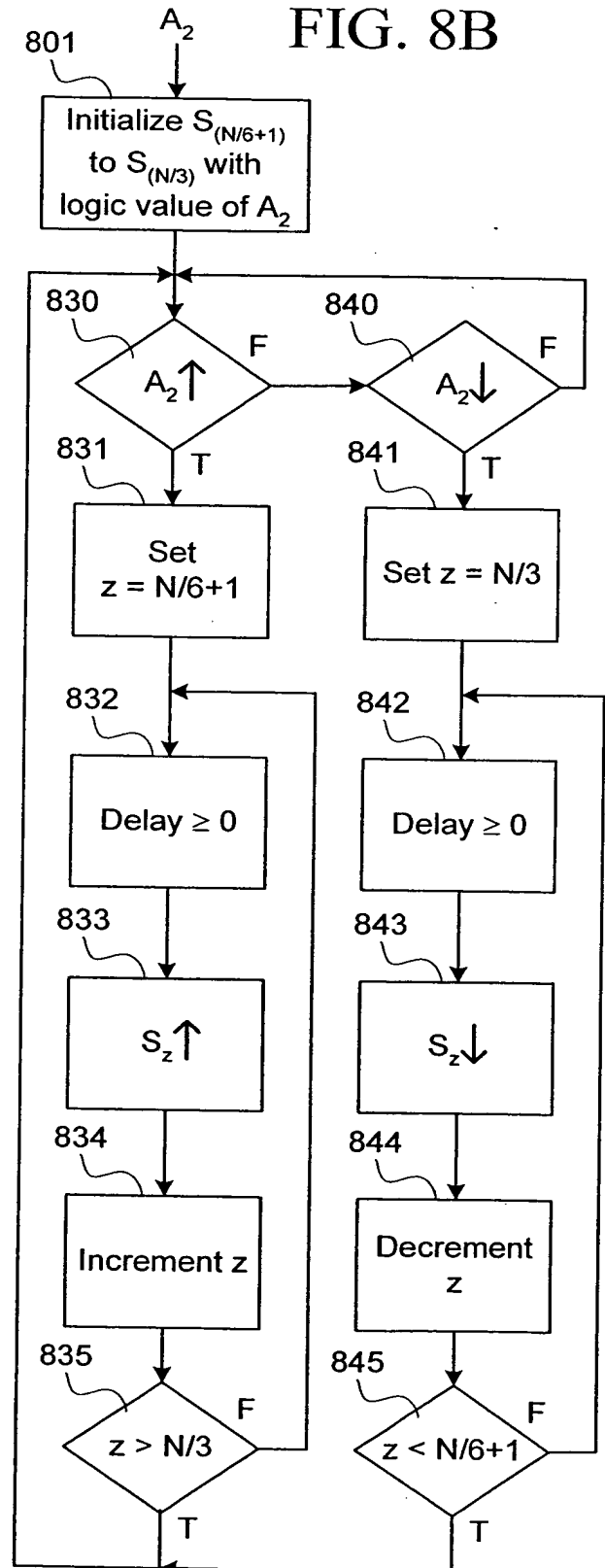


FIG. 9A

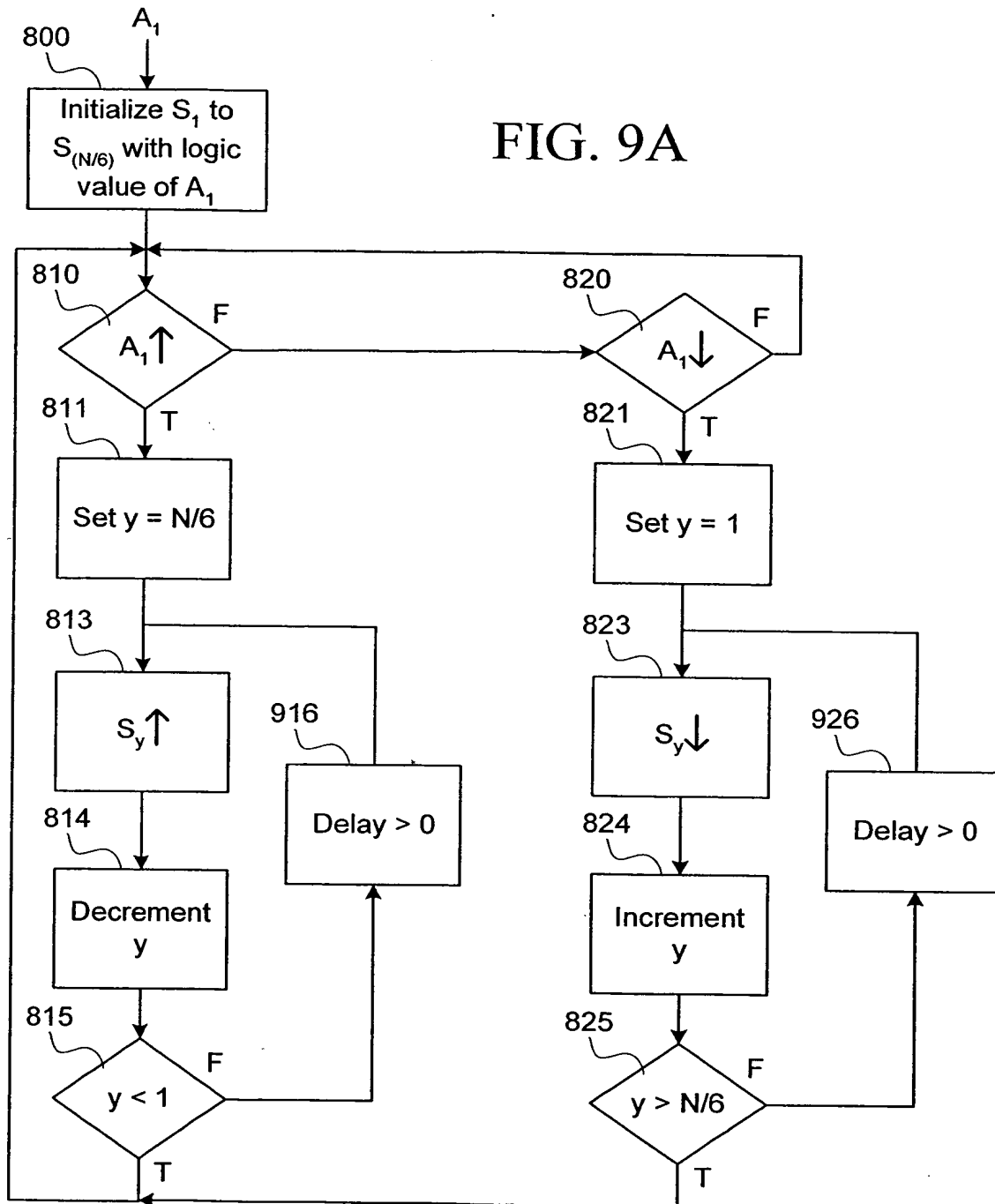
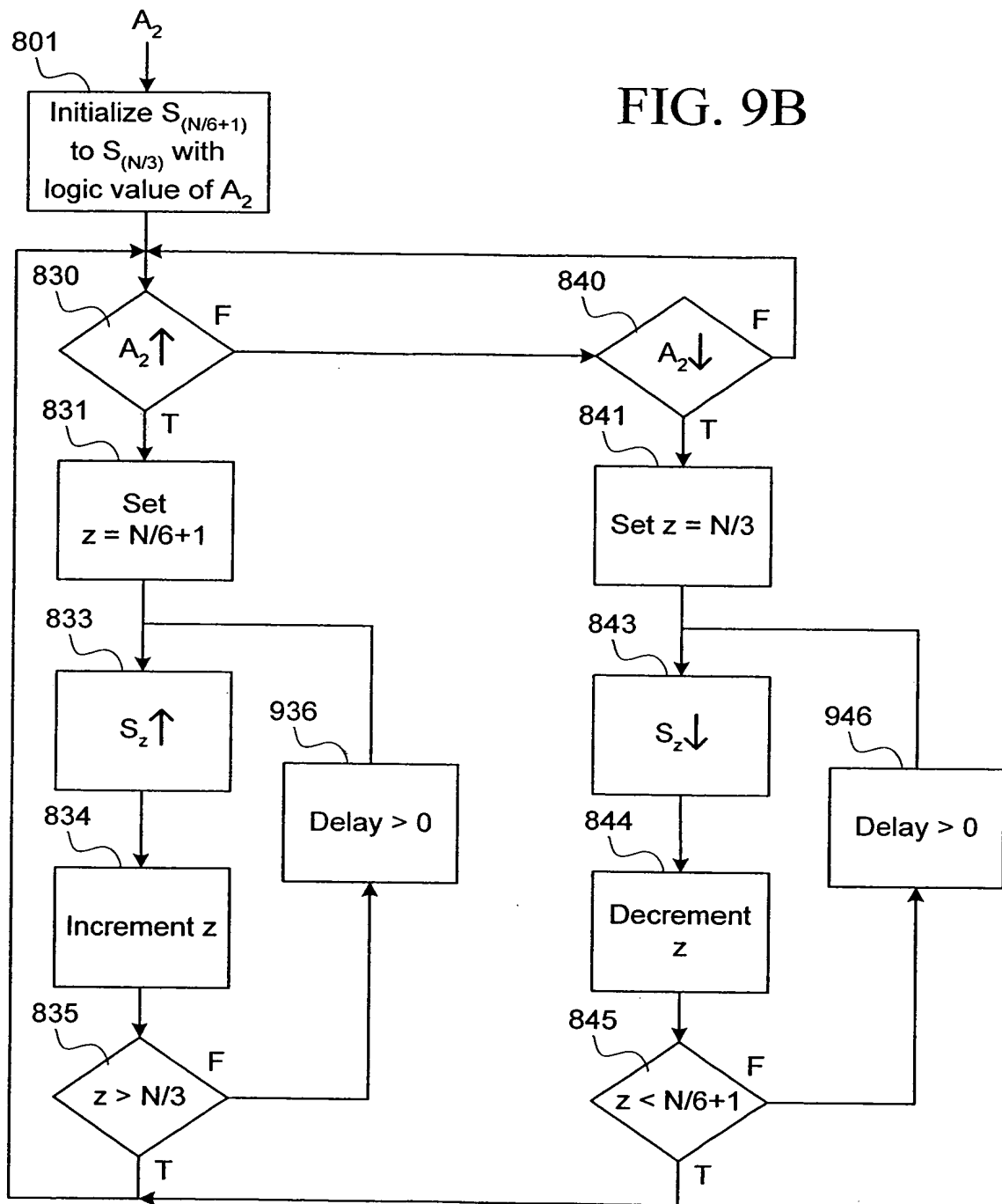


FIG. 9B



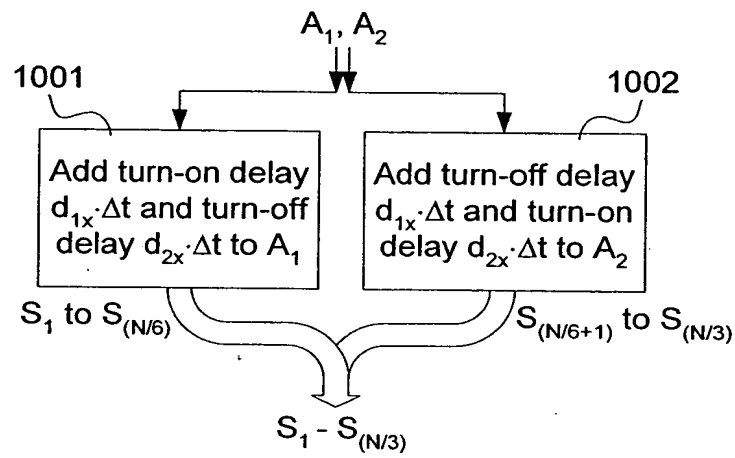


FIG. 10

FIG. 11

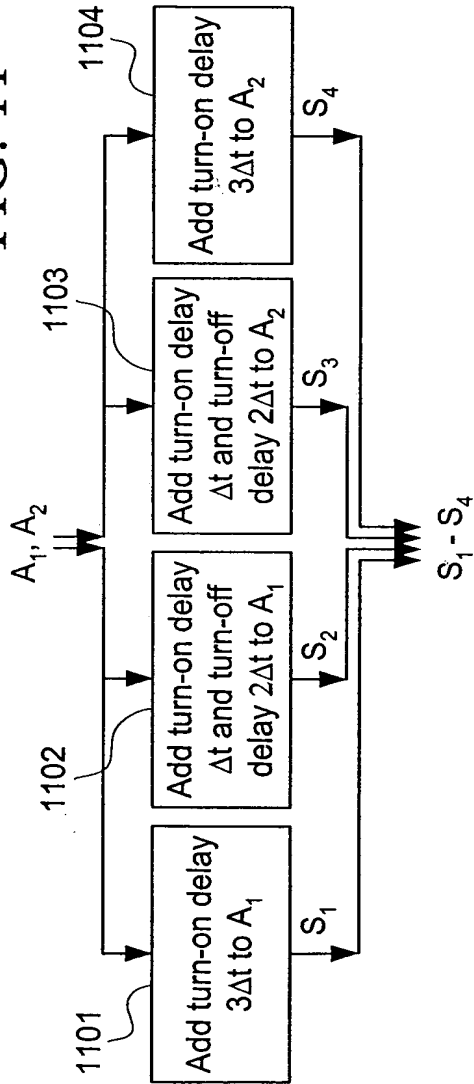


FIG. 12

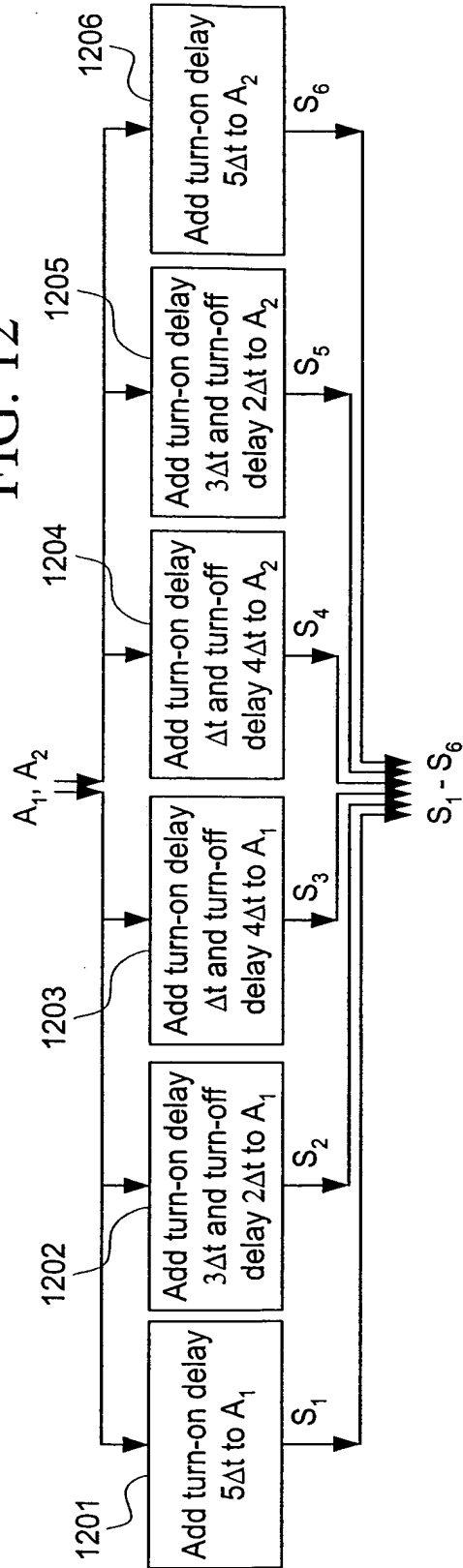
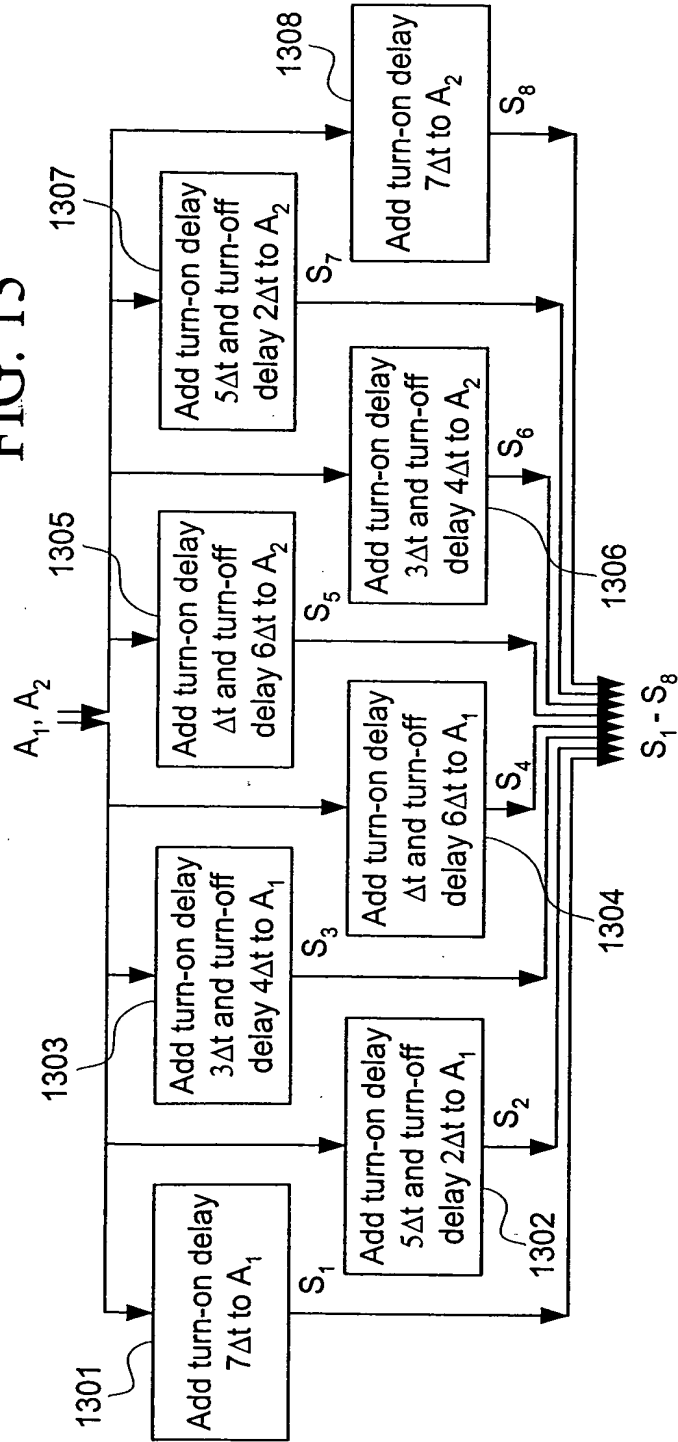


FIG. 13



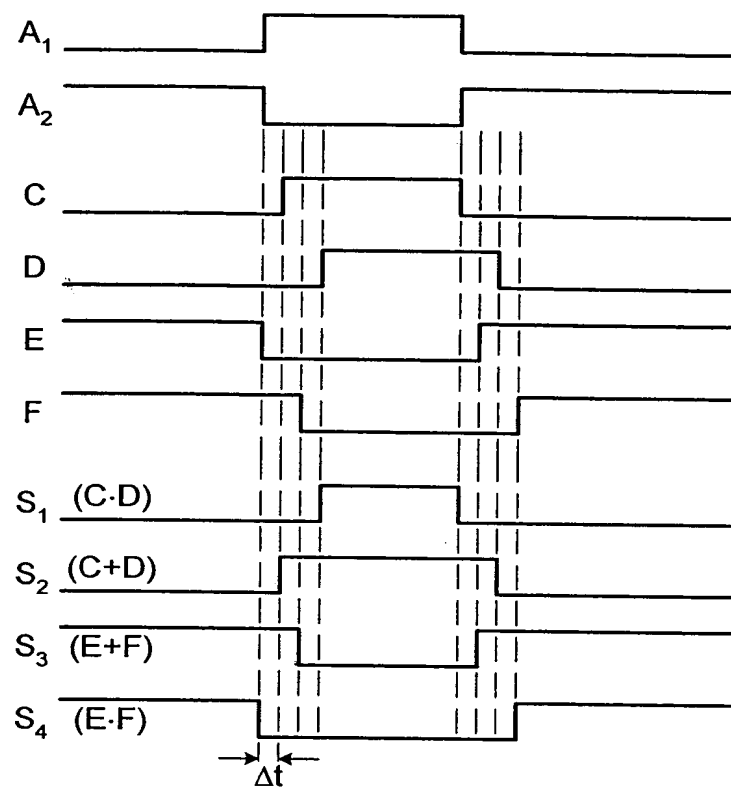


FIG. 14

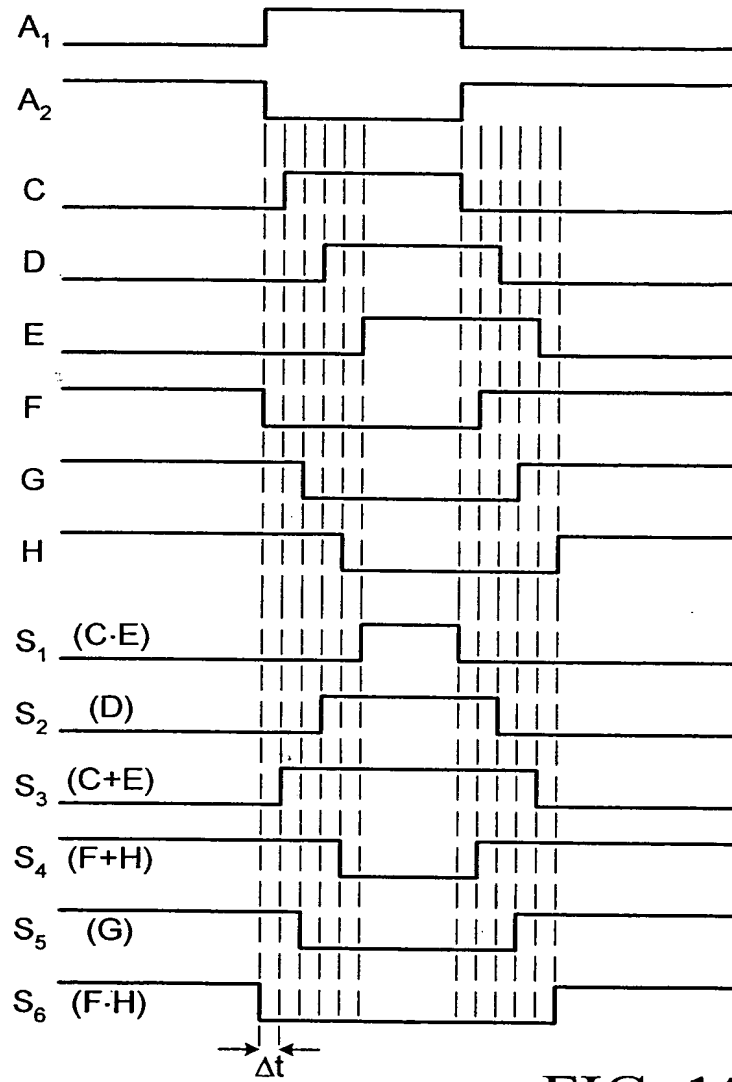


FIG. 15

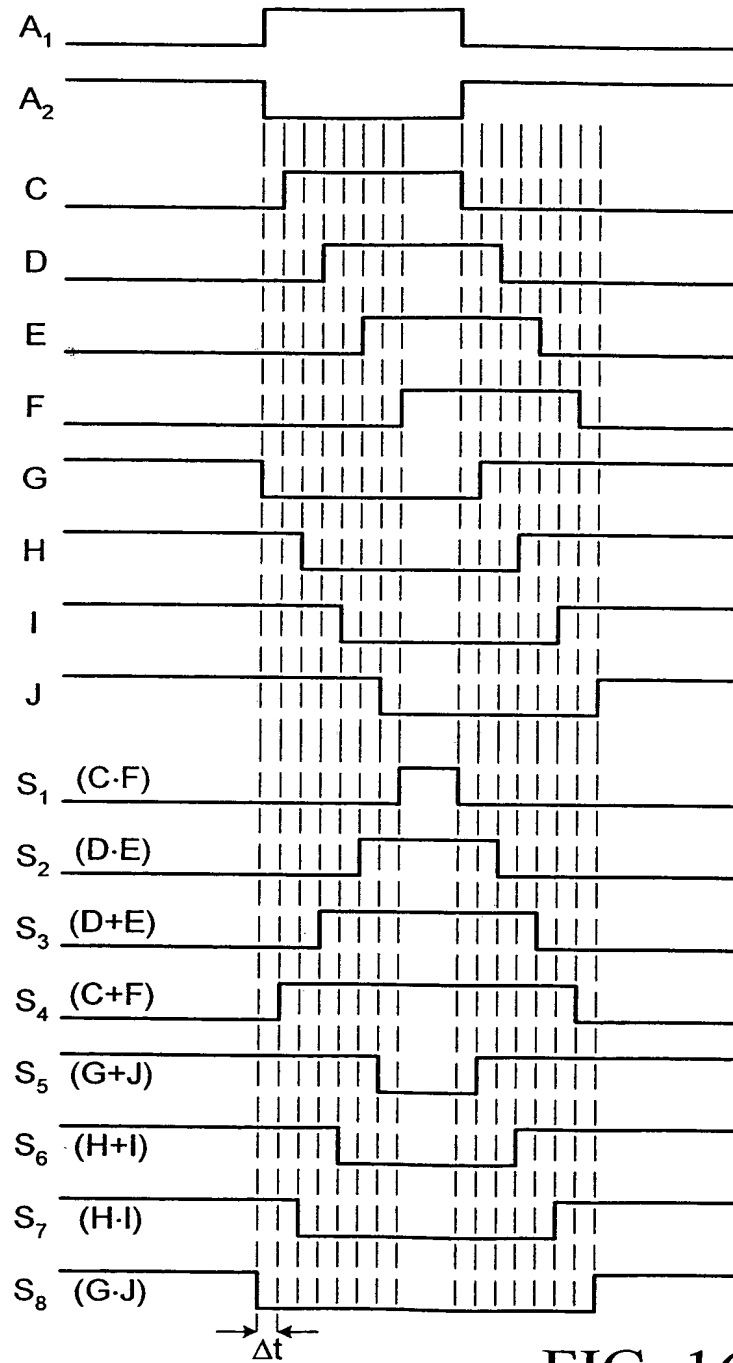


FIG. 16

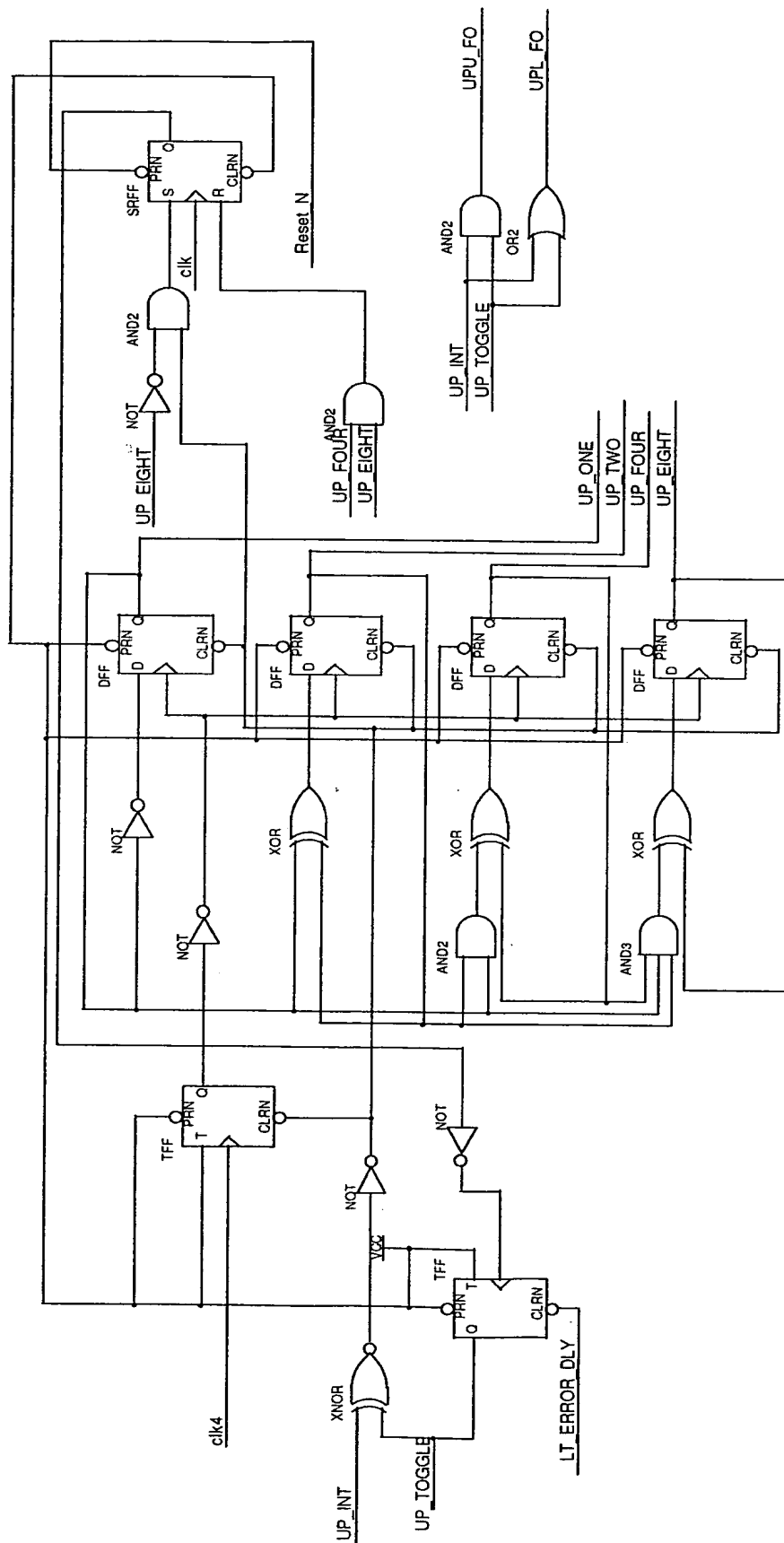


FIG. 17A

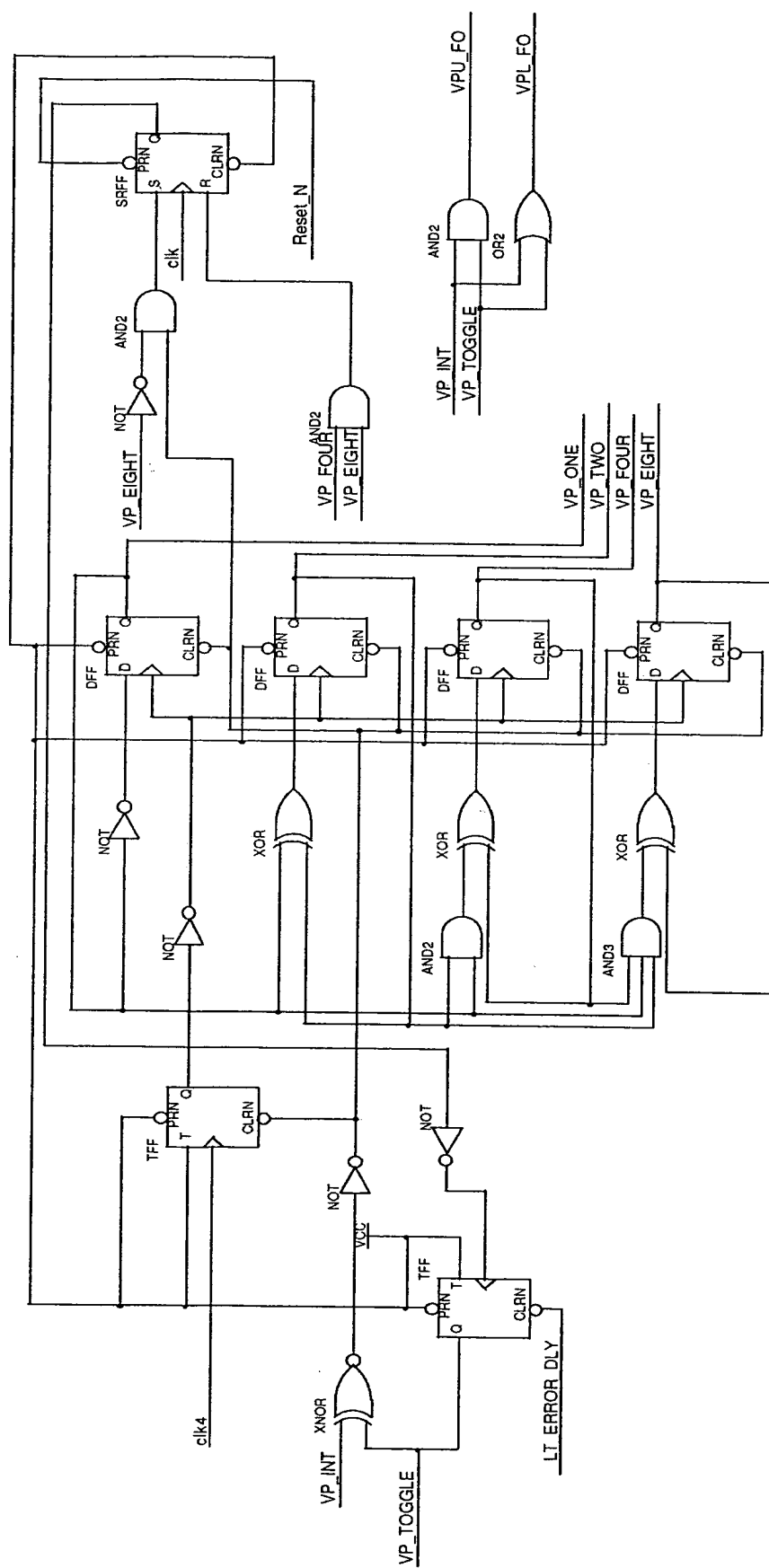


FIG. 17B

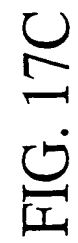


FIG. 17C

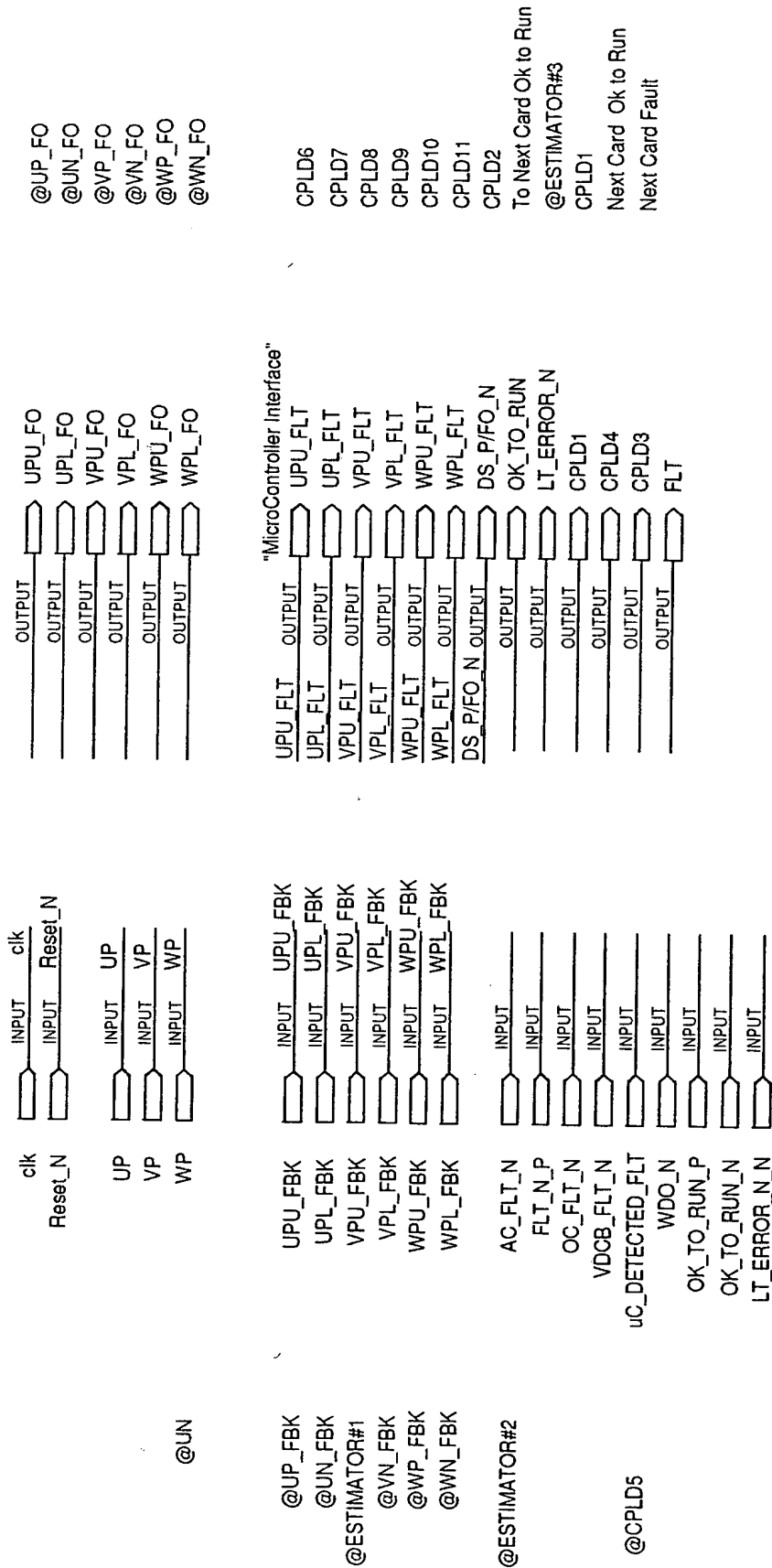


FIG. 17D

FIG. 17E

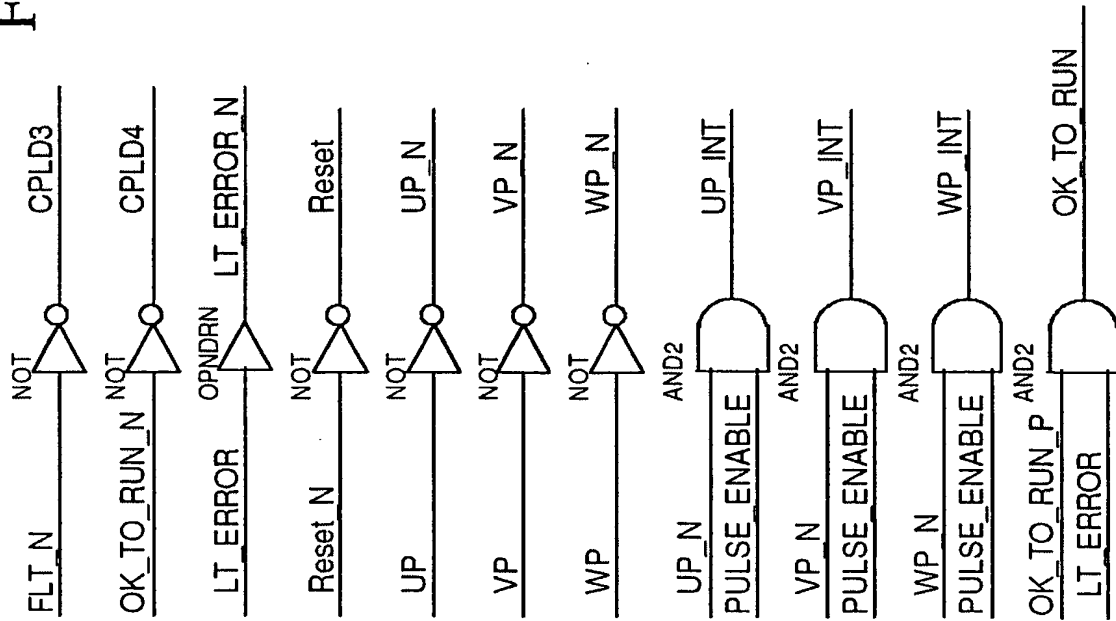
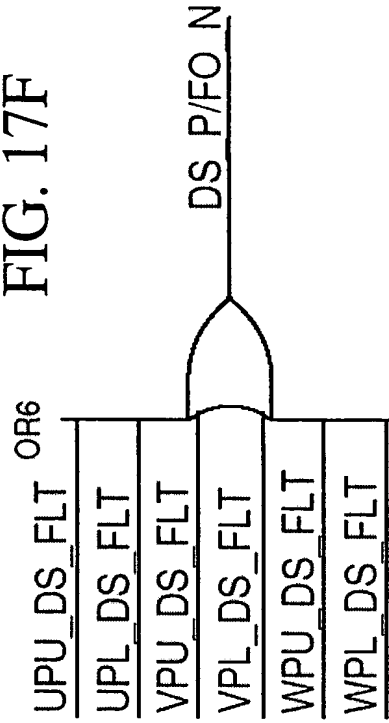


FIG. 17F



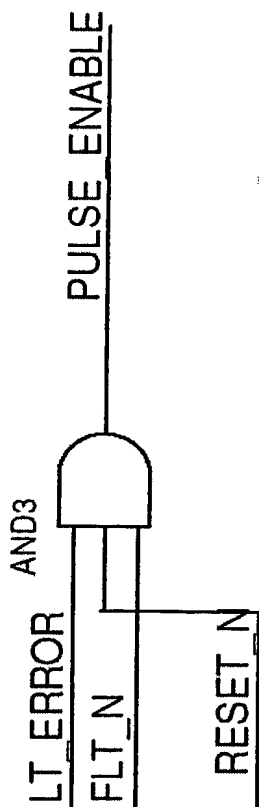
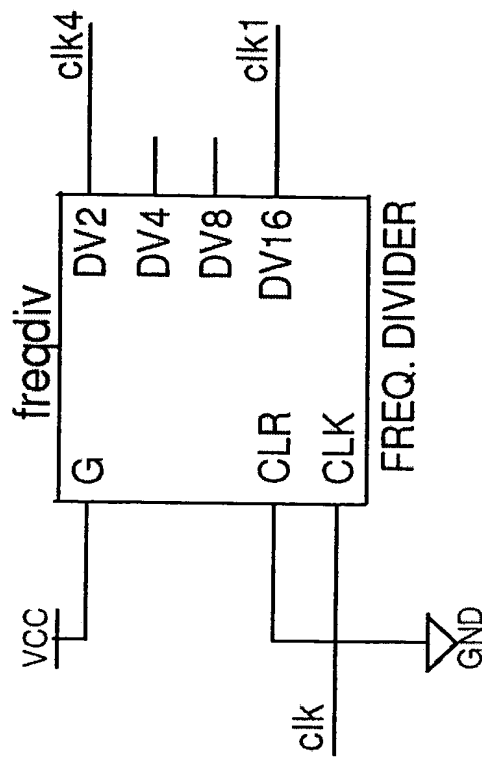


FIG. 17G

FIG. 17H



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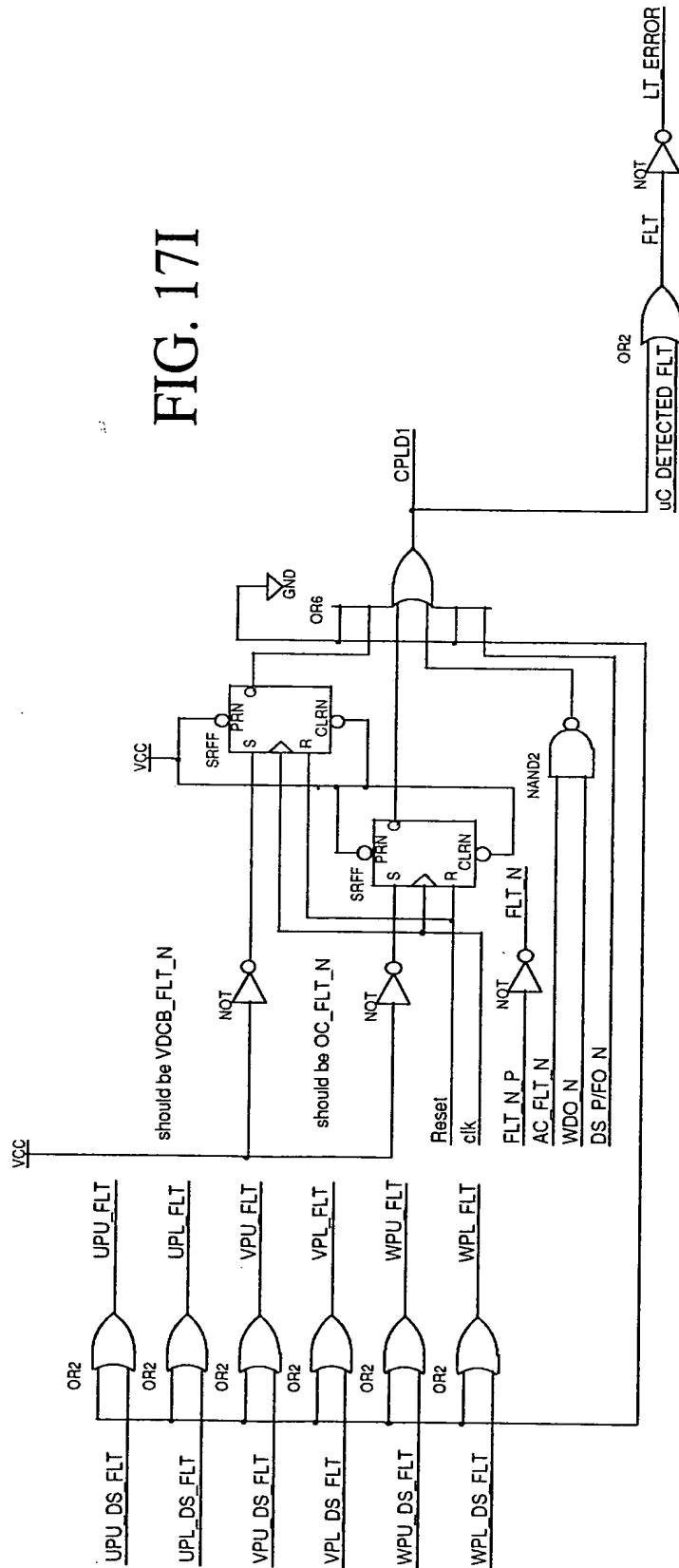


FIG. 17J

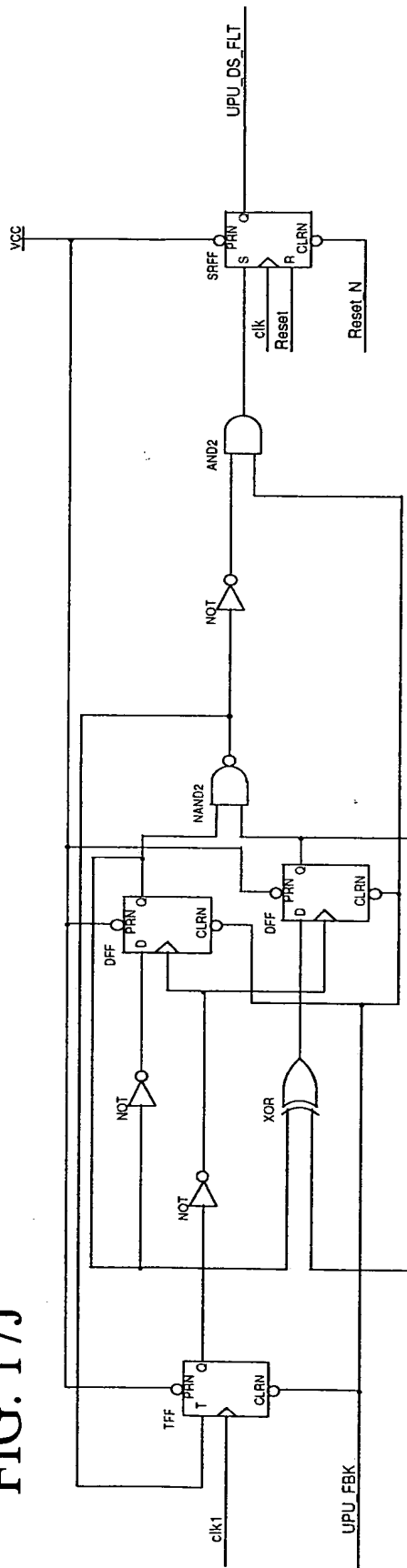


FIG. 17K

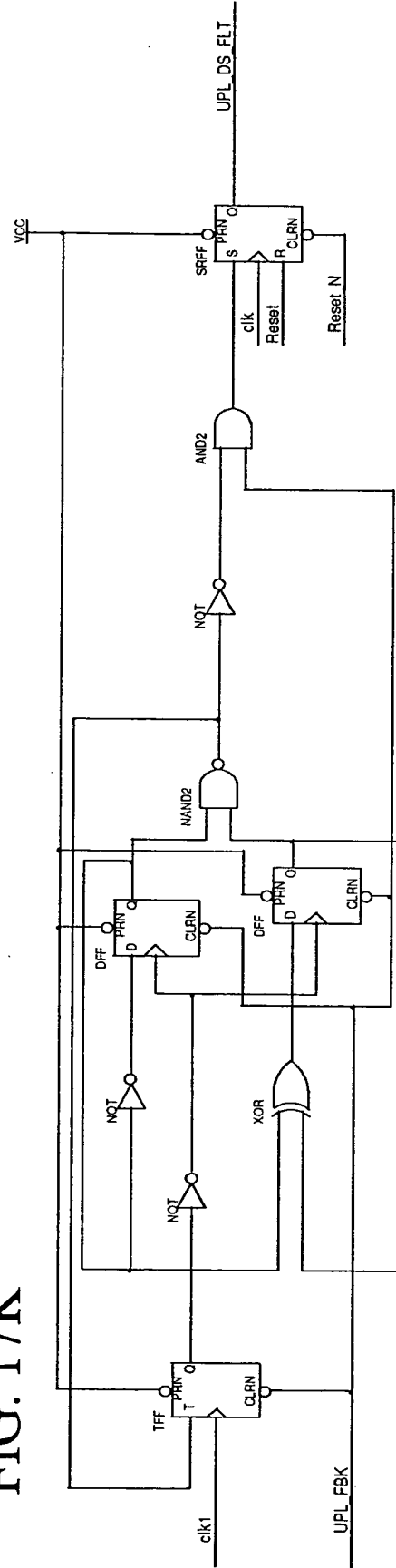


FIG. 17L

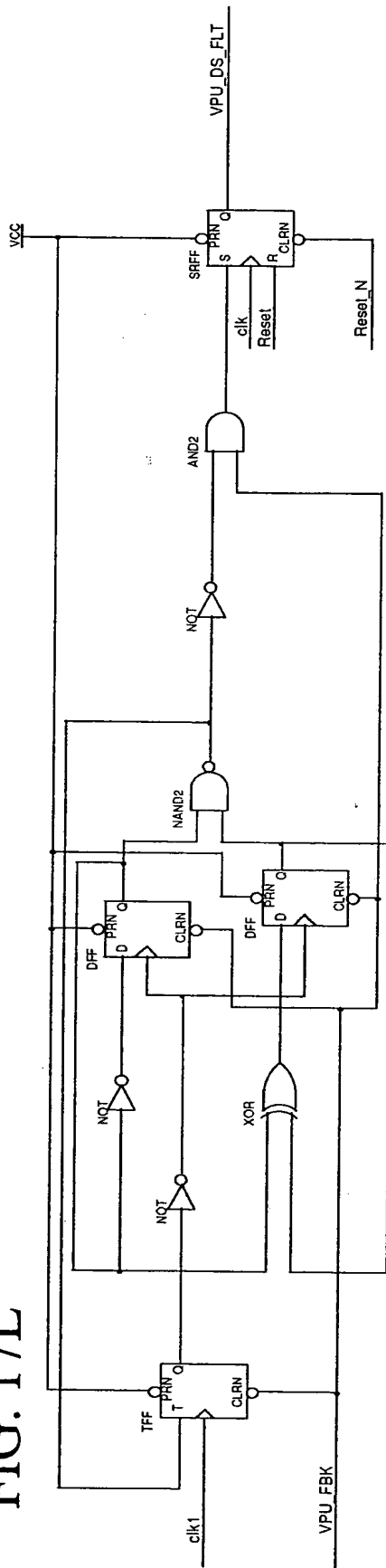


FIG. 17M

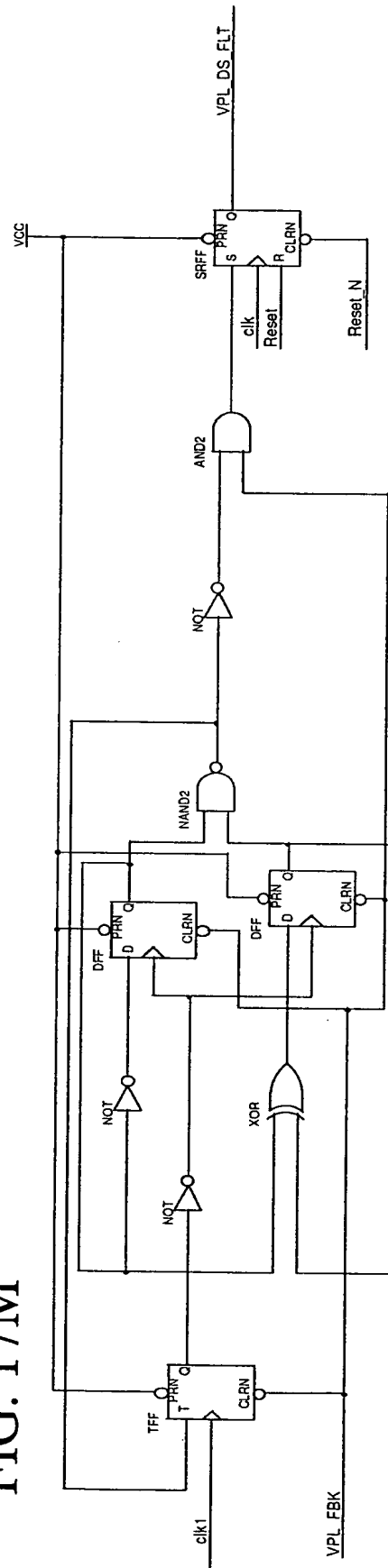


FIG. 17N

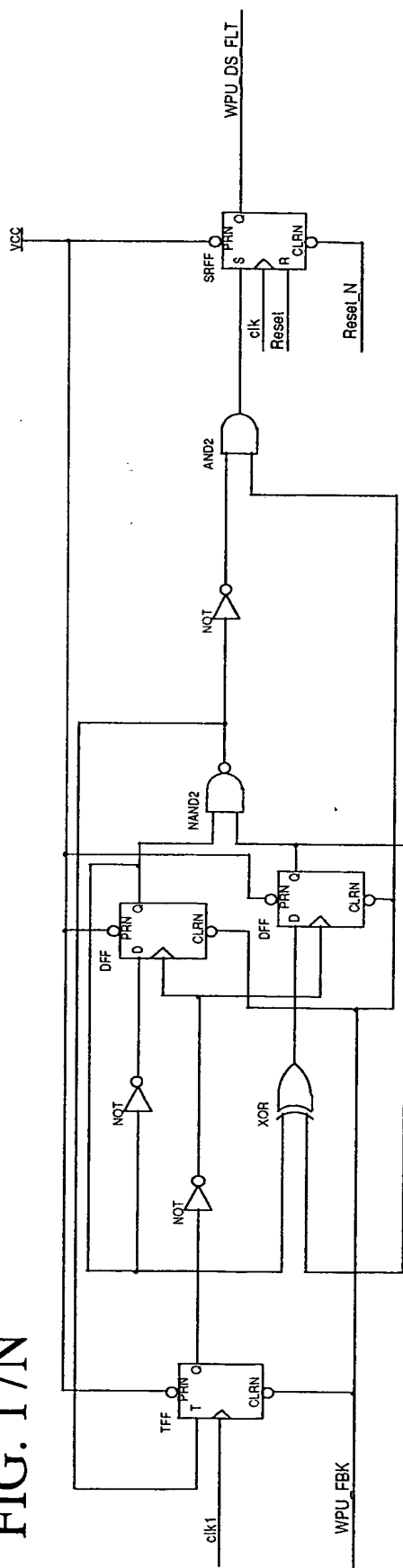
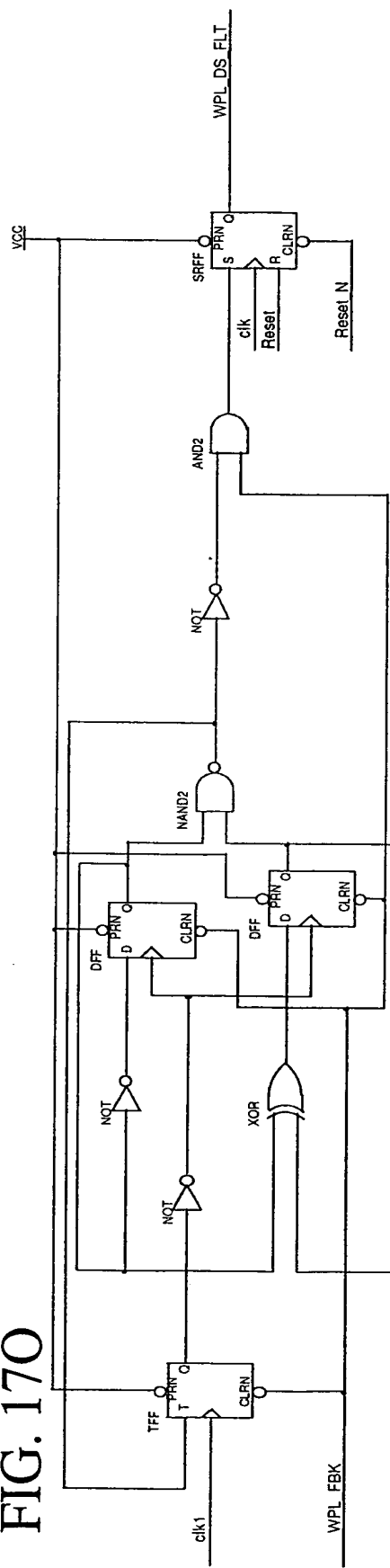
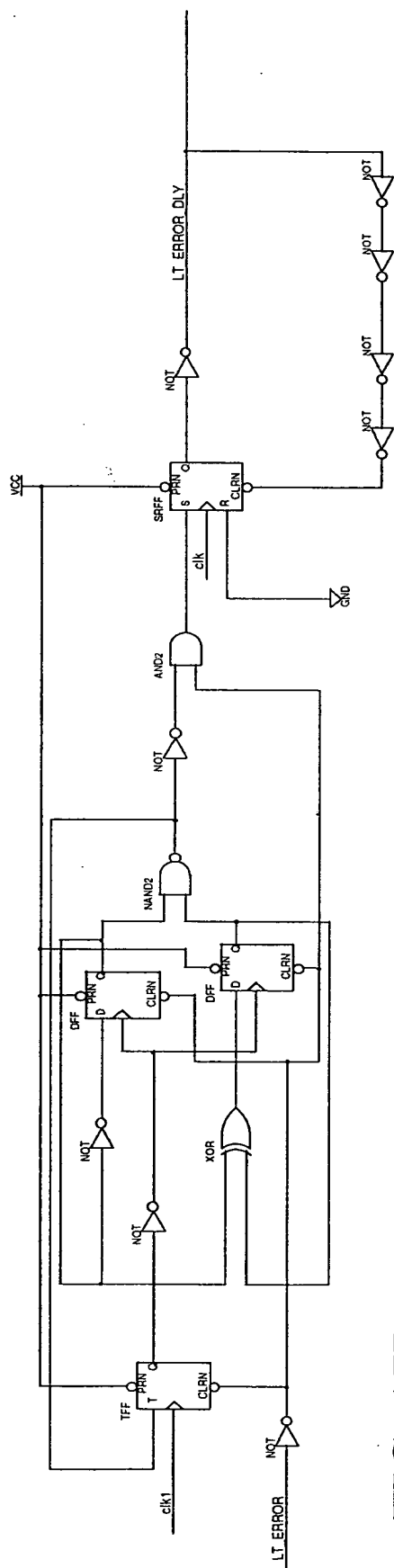


FIG. 17O





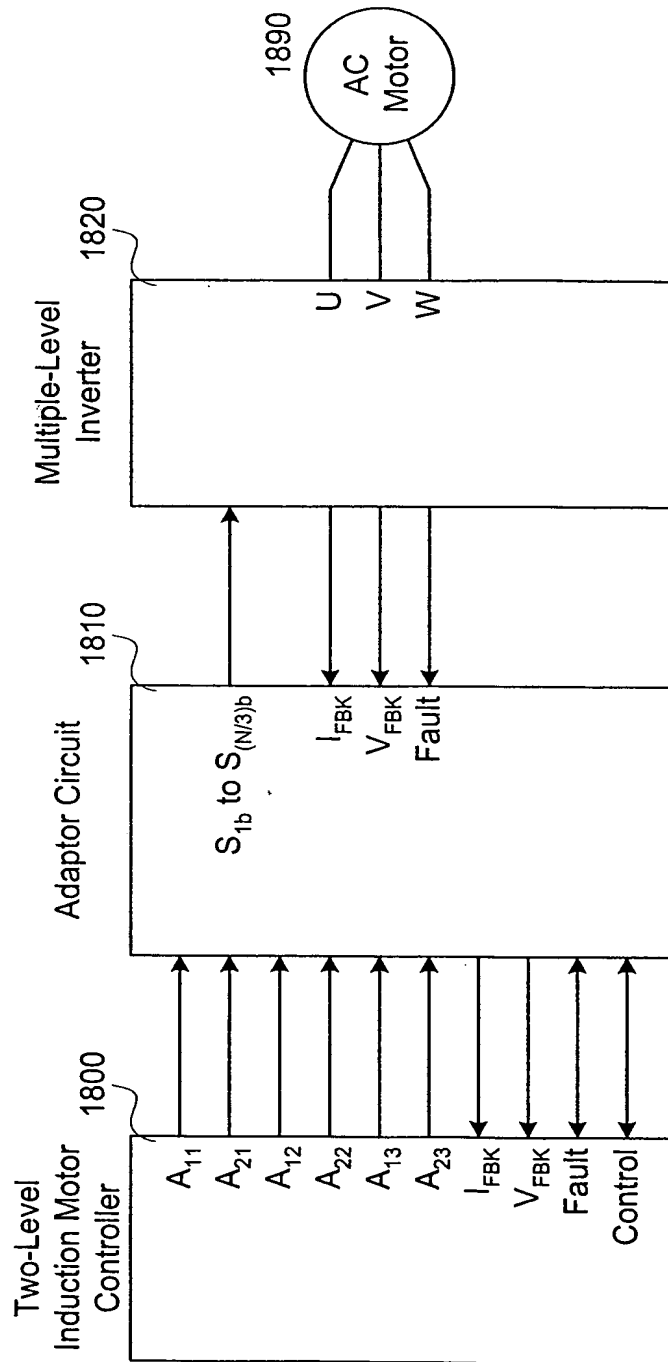


FIG. 18

FIG. 19

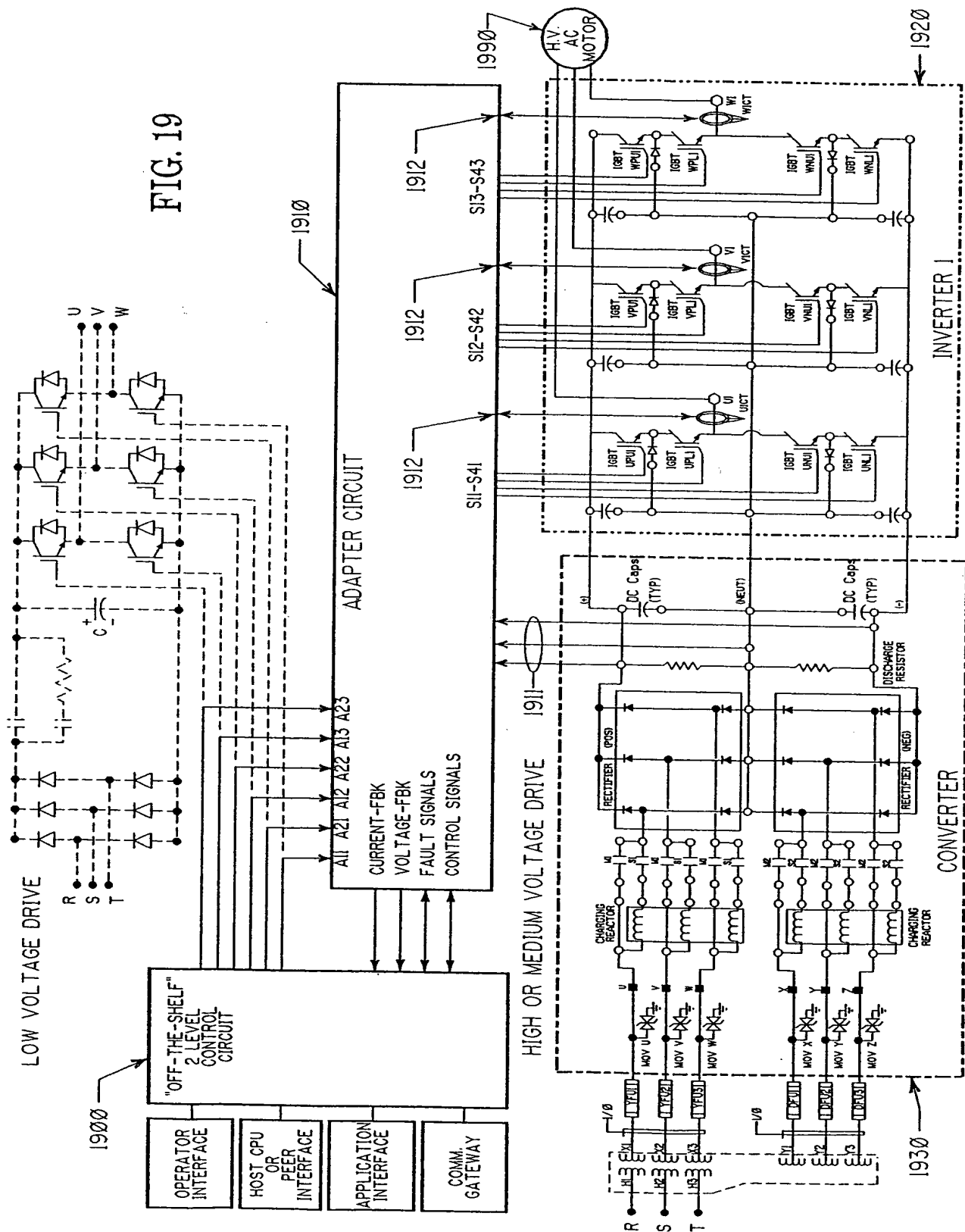


FIG. 20A

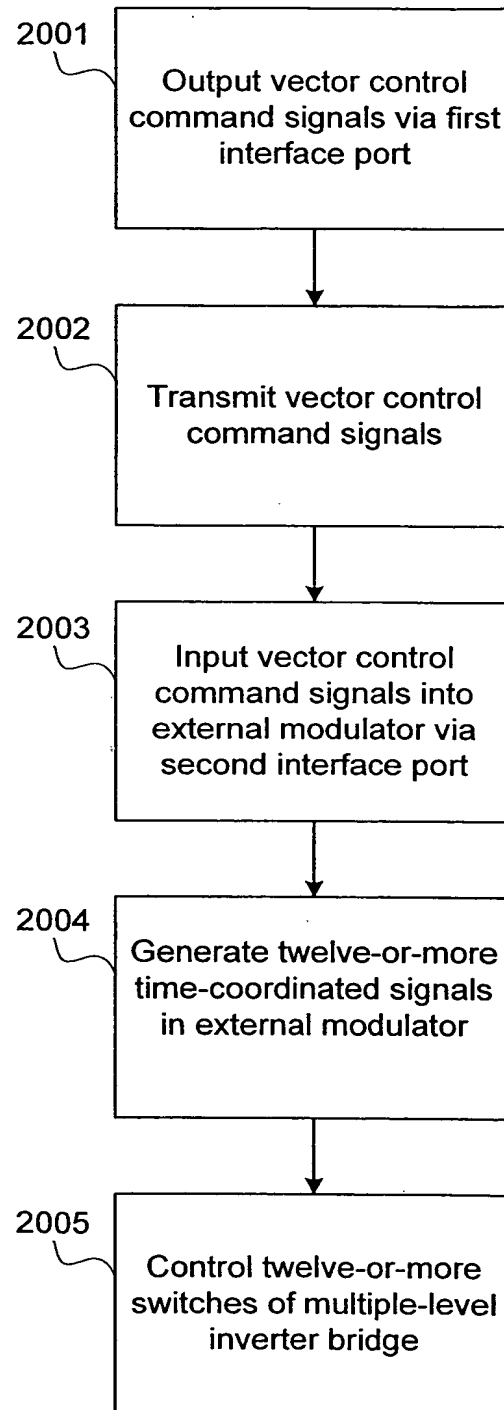
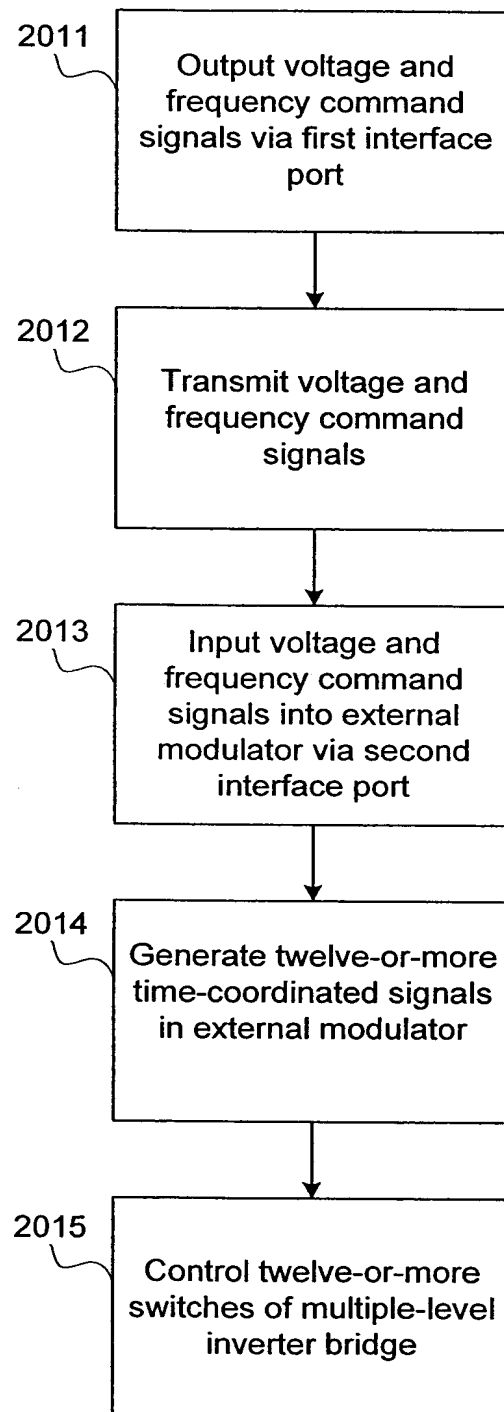


FIG. 20B



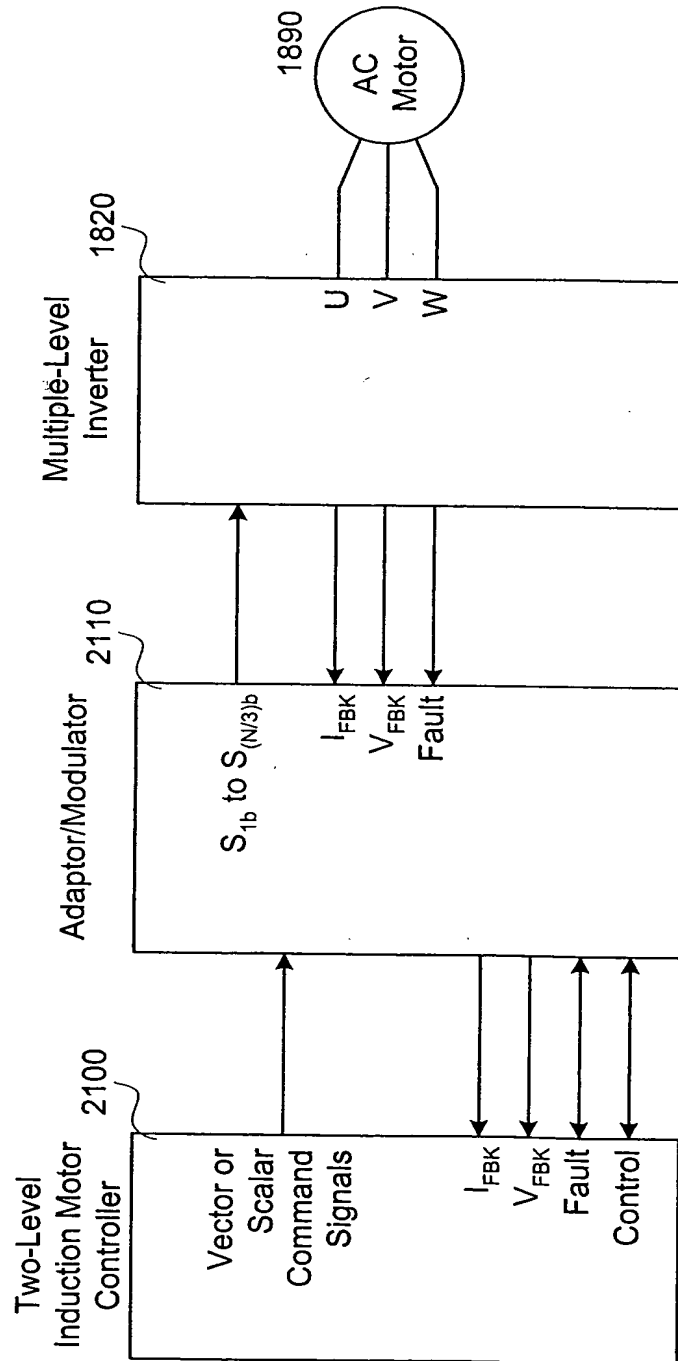
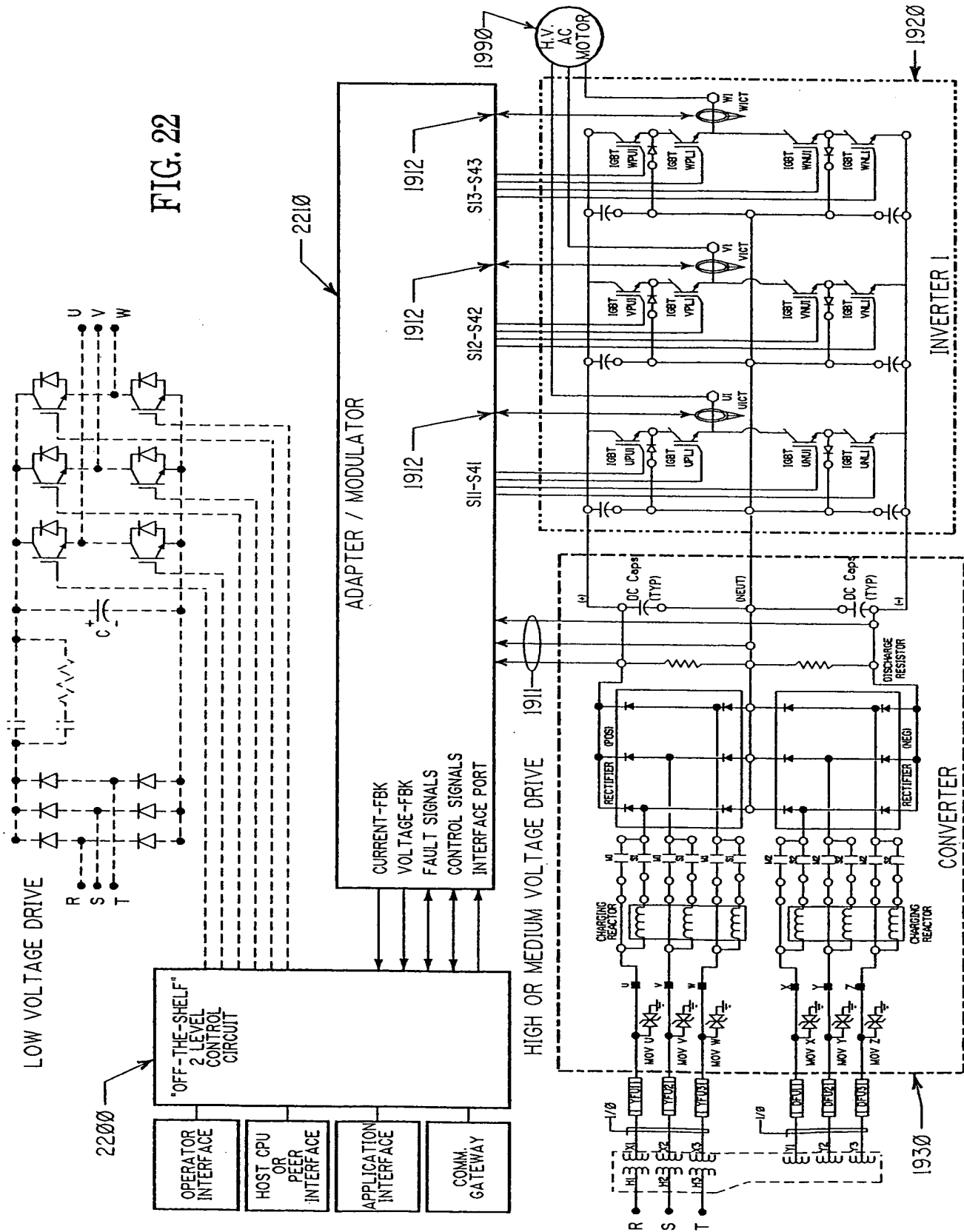


FIG. 21



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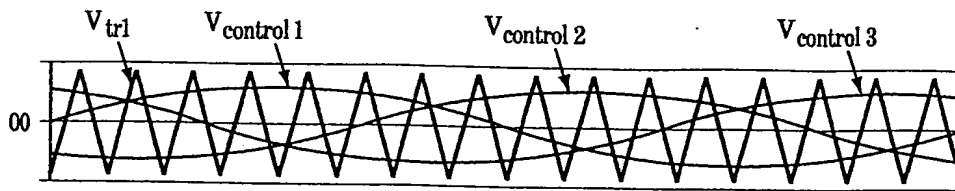


FIG. 23A

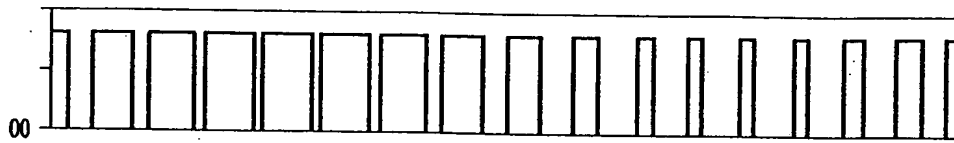


FIG. 23B

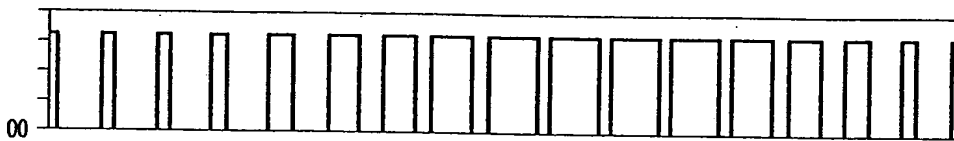


FIG. 23C

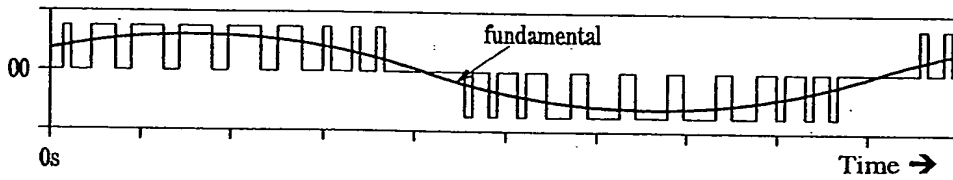


FIG. 24

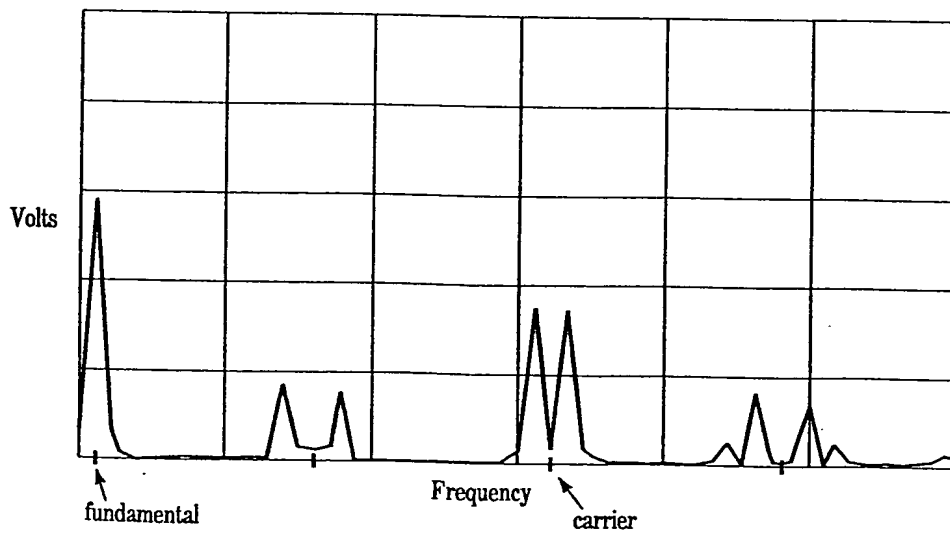


FIG. 25

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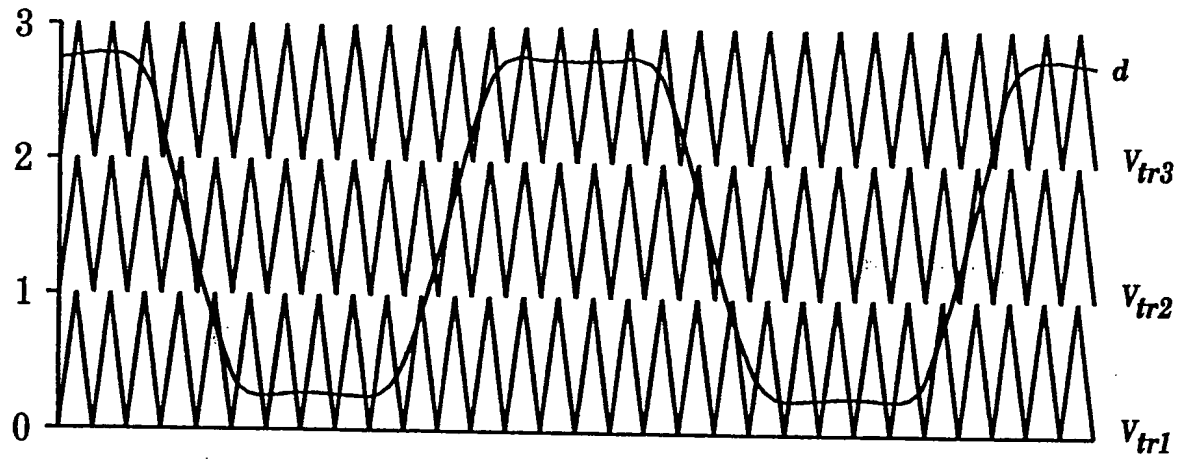


FIG. 26A

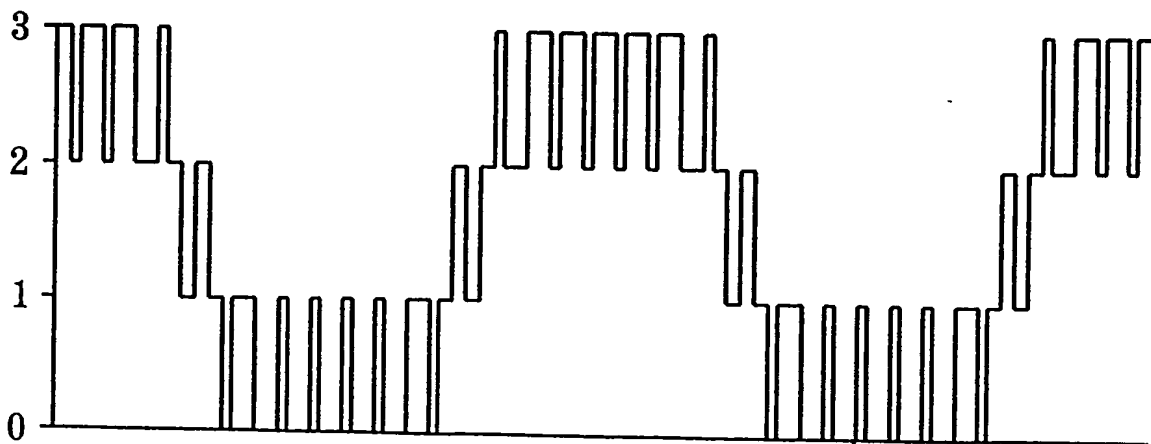
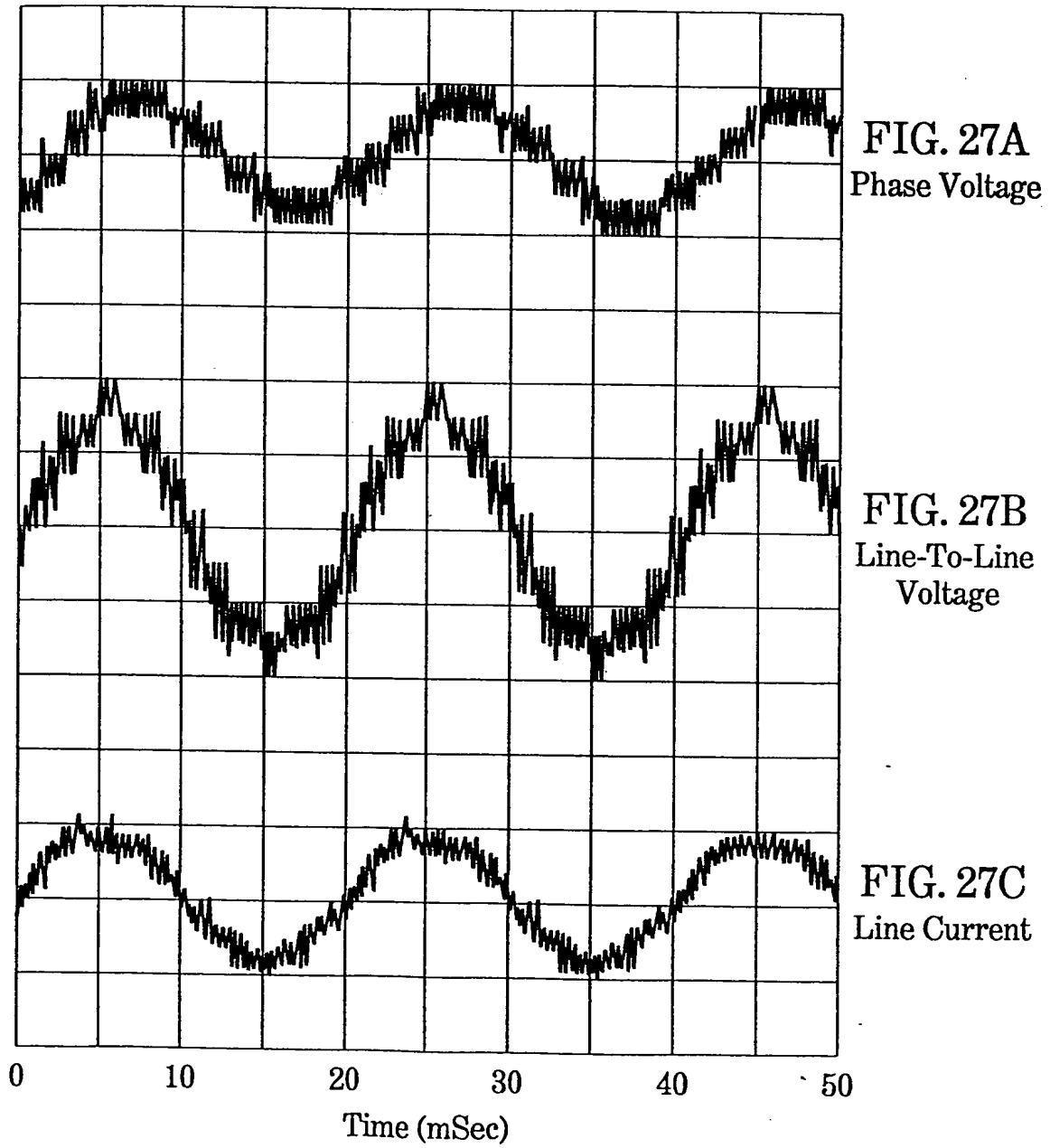


FIG. 26B

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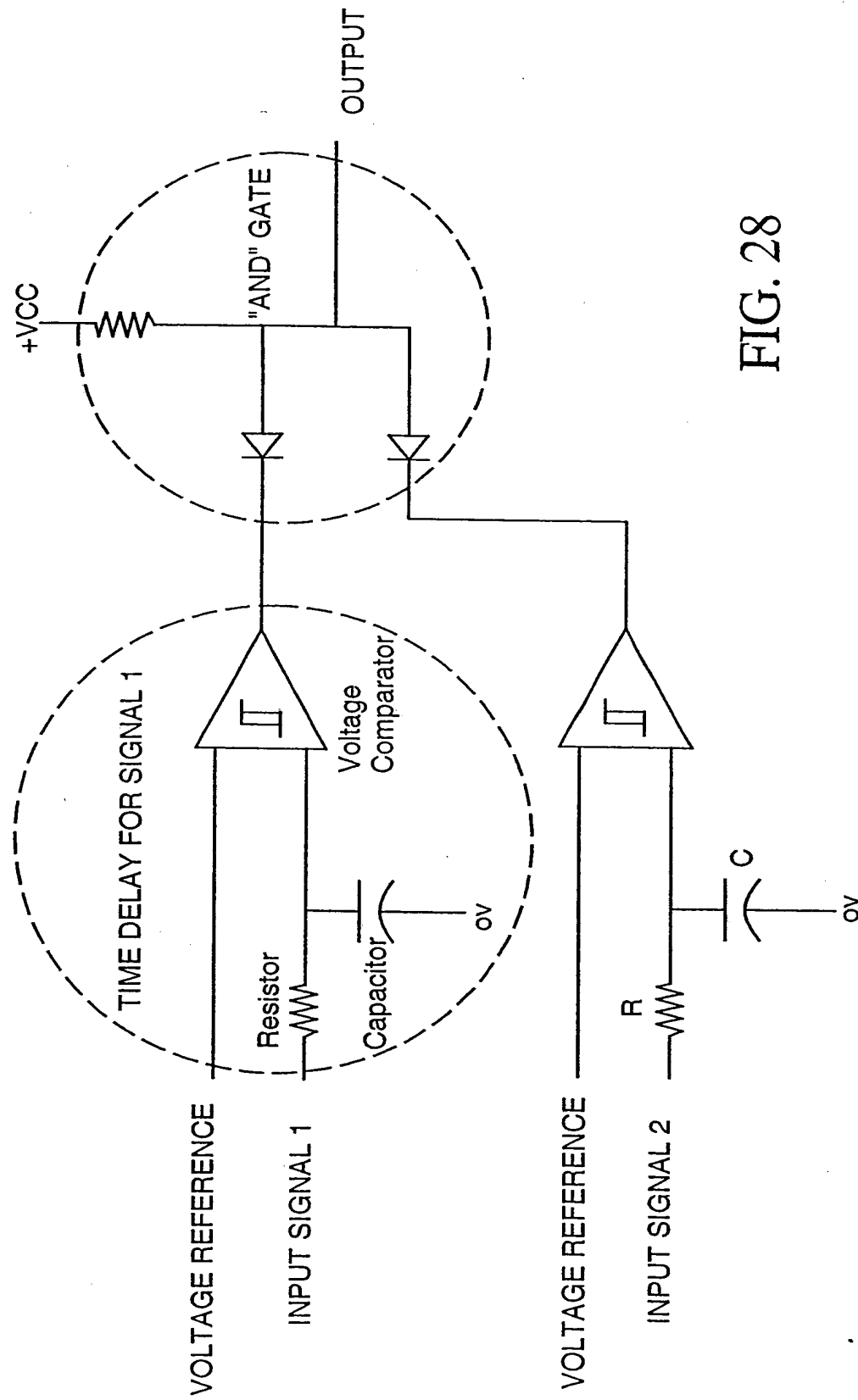
EQUIVALENT PARTIAL LOGIC IMPLEMENTED WITH ANALOG CIRCUIT

FIG. 28

Off-the-Shelf Induction Motor Controller with Vector Control with Space Vector Modulator

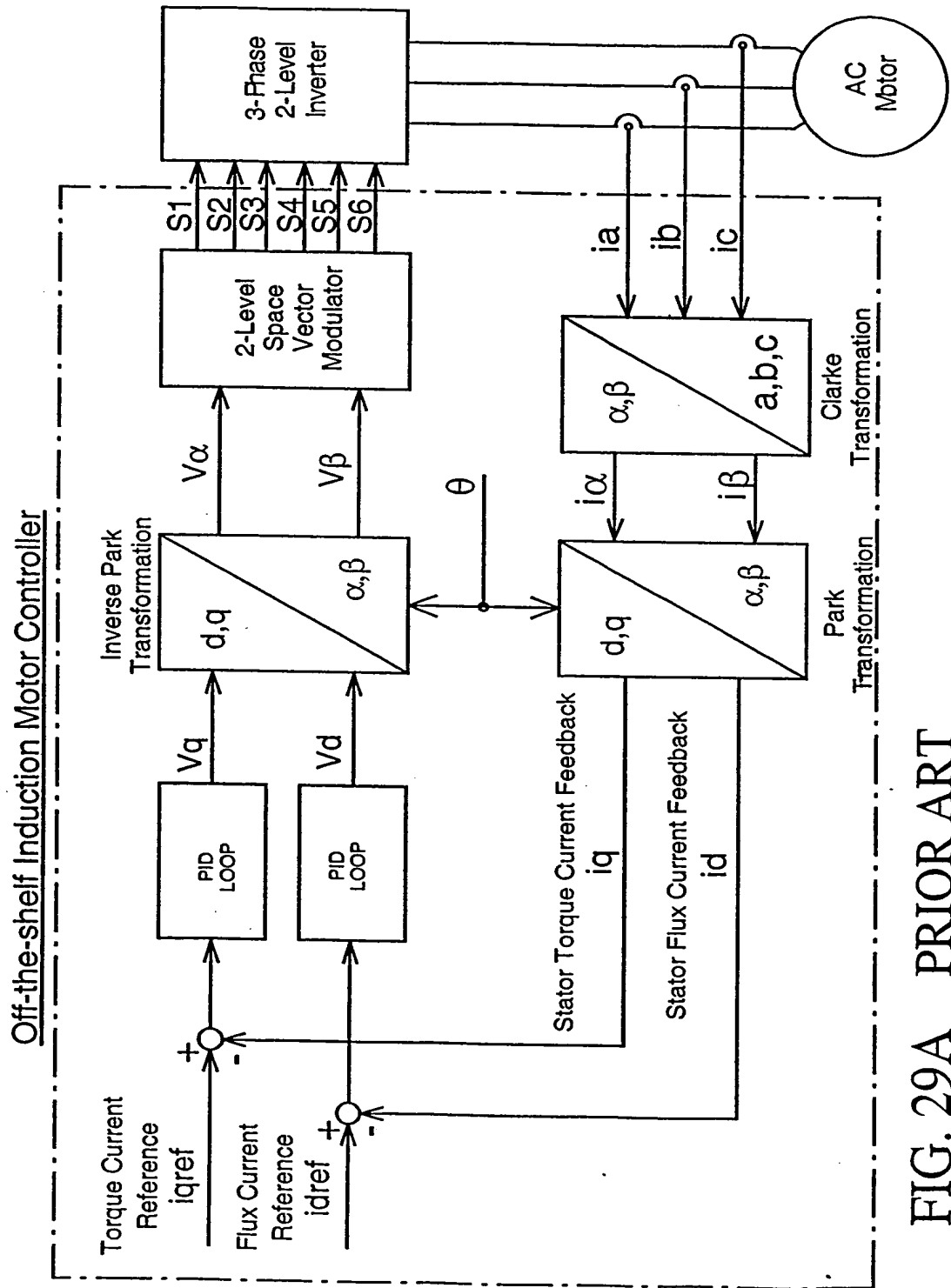


FIG. 29A PRIOR ART

Off-the-Shelf Induction Motor Controller with Vector Control with Sine-Triangle Modulator

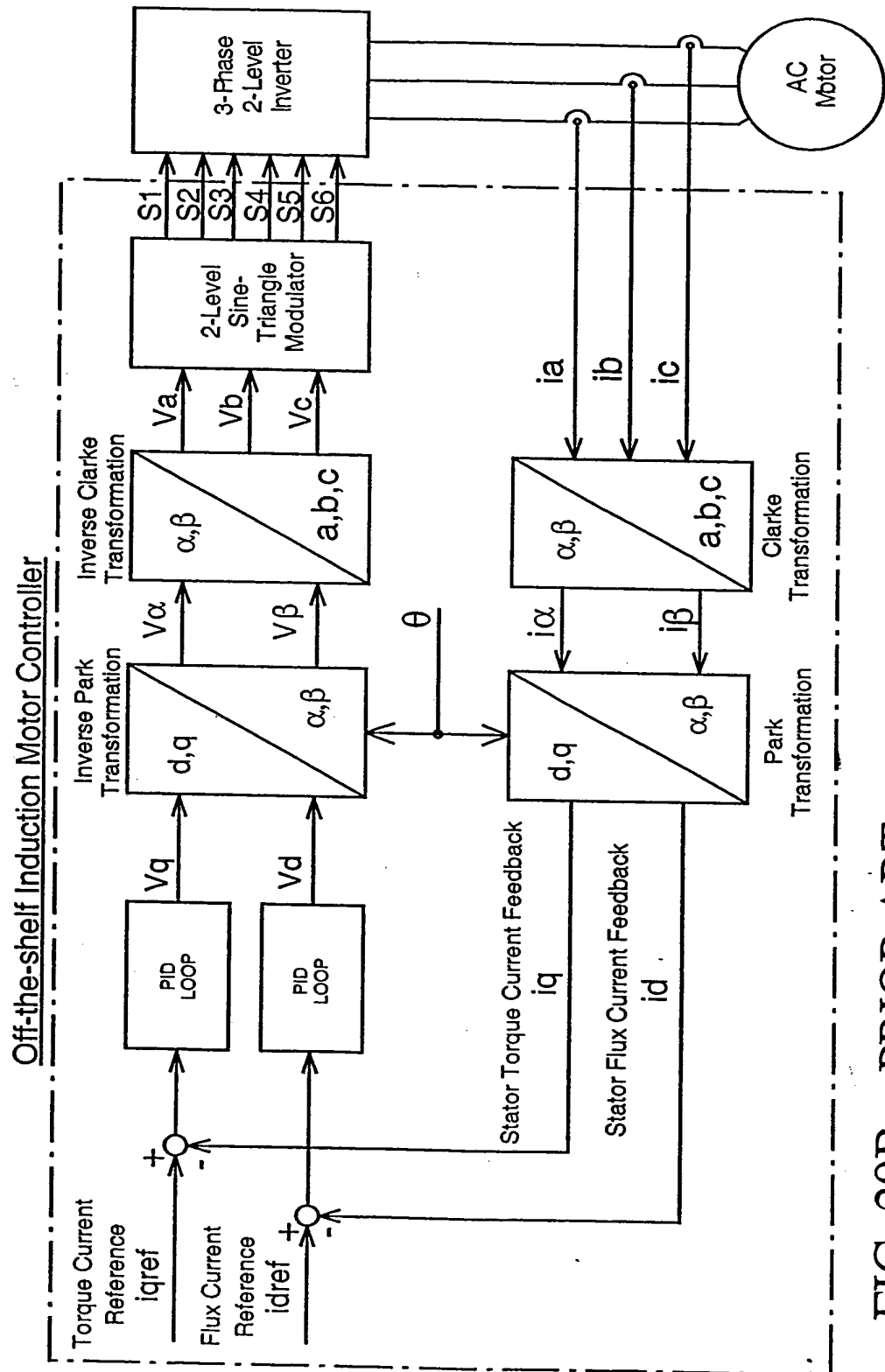


FIG. 29B PRIOR ART

Example of the Second Variation of the Invention with
Space Vector Modulator

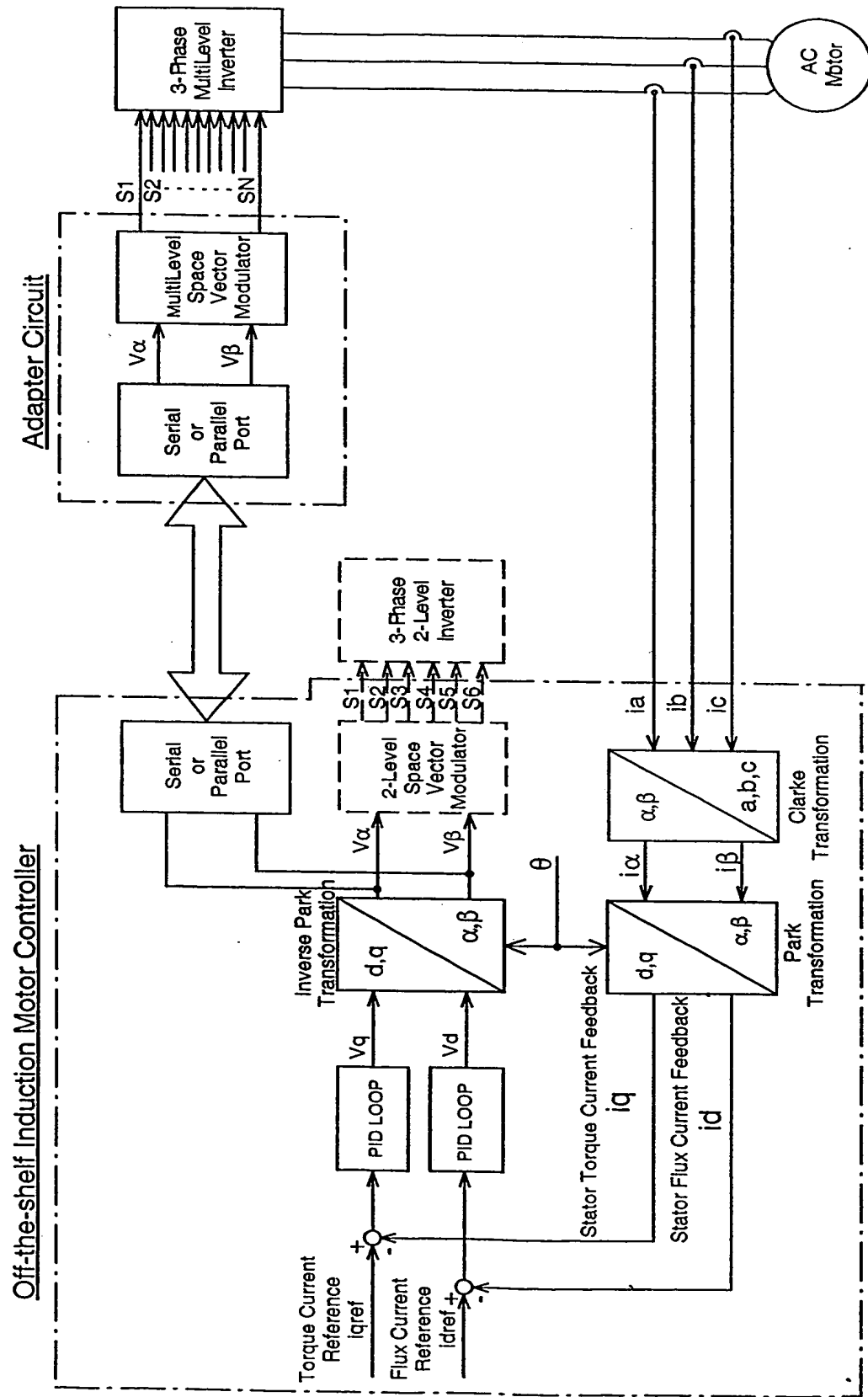


FIG. 30A

Example of the Second Variation of the Invention with
Sine-Triangle Modulator

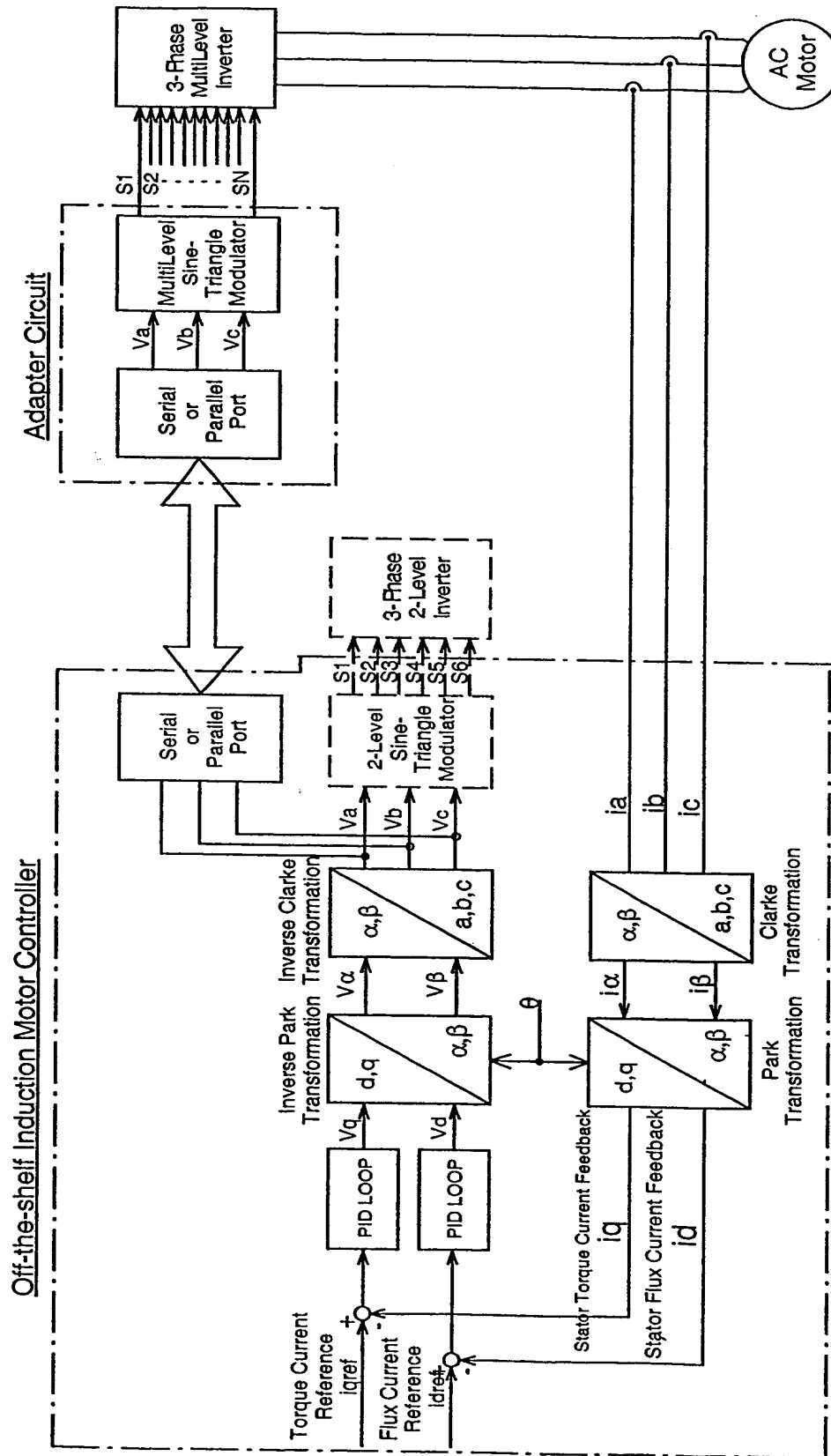


FIG. 30B

Example of the Second Variation of the Invention with Mathematical Transformations and Sine-Triangle Modulator

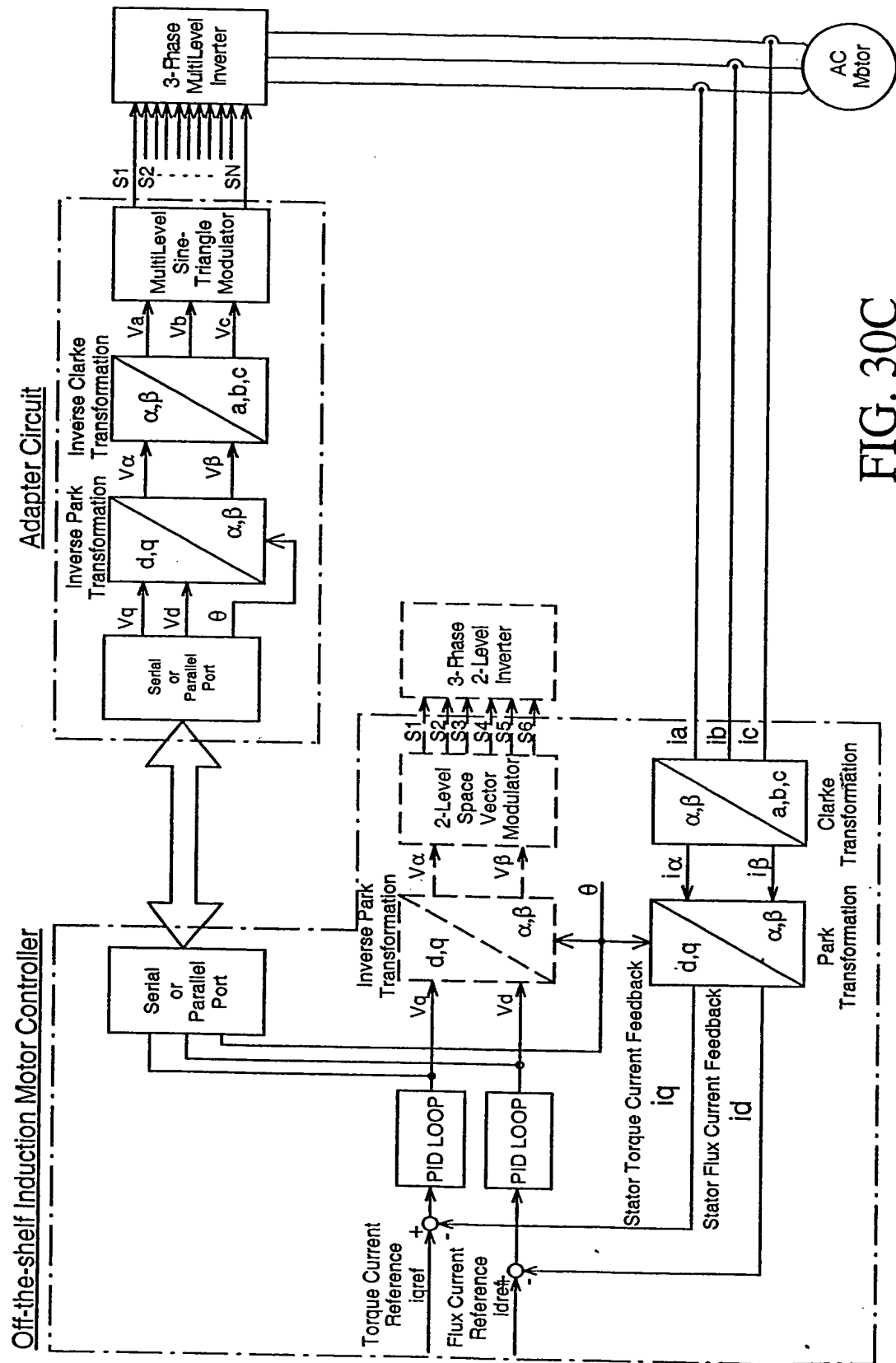


FIG. 30C

Example of the Second Variation of the Invention with
Mathematical Transformation and Space Vector Modulator

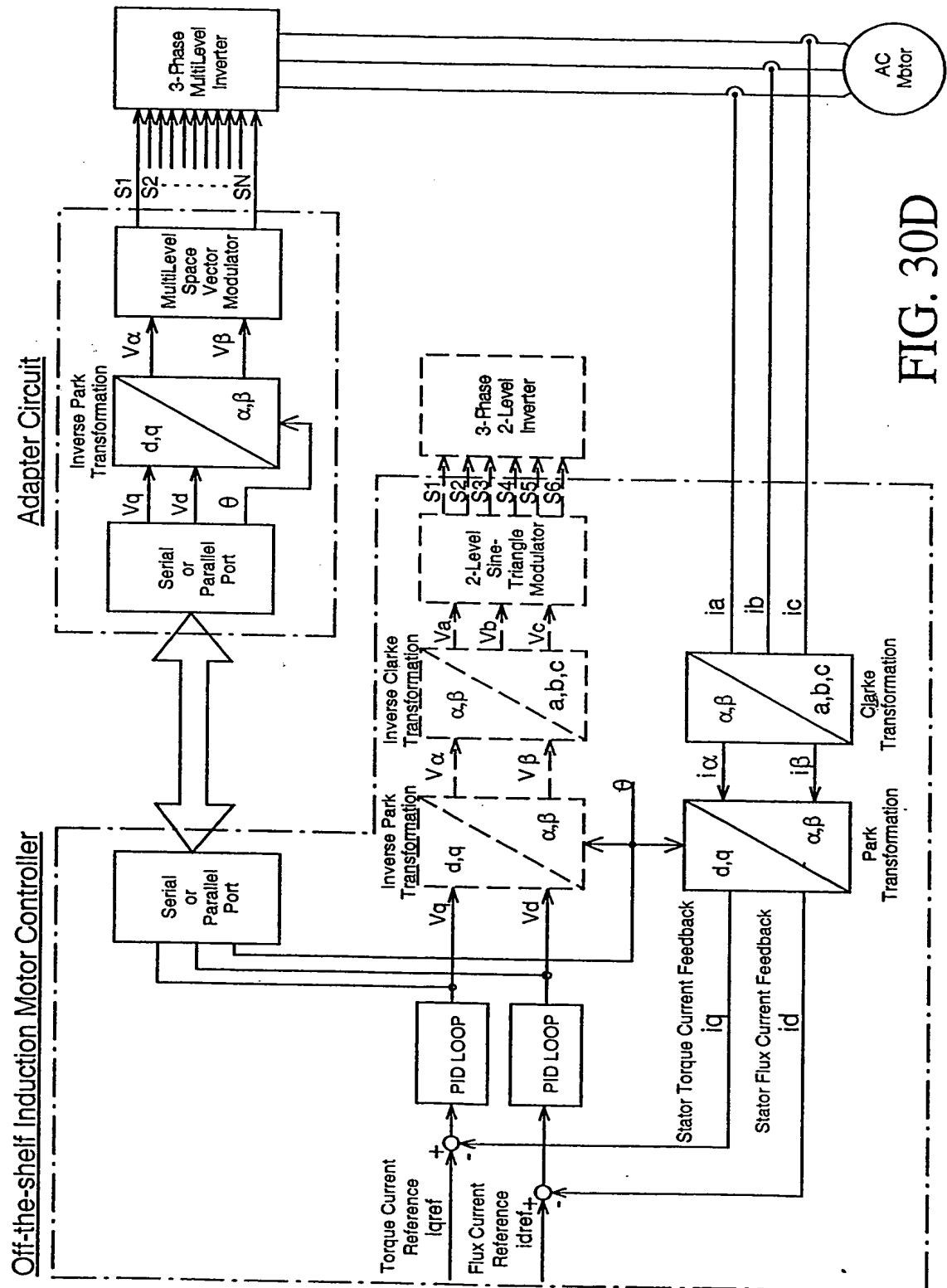


FIG. 30D